

AN
AUTHENTIC HISTORY
OF THE
LAWRENCE CALAMITY

EMBRACING A
DESCRIPTION OF THE PEMBERTON MILL,
A DETAILED ACCOUNT OF THE CATASTROPHE,
A CHAPTER OF THRILLING INCIDENTS,
LIST OF CONTRIBUTIONS TO THE RELIEF FUND, NAMES OF THE KILLED AND WOUNDED,
ABSTRACTS OF SERMONS ON THE SUBJECT,
REPORT OF THE CORONER'S INQUEST, &c.

BOSTON:
JOHN J. DYER & CO., 35 SCHOOL STREET,
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INTRODUCTION.

THE destruction of the Pemberton Mills at Lawrence, with its attendant appalling loss of life, and injury to the living, is an event calamitous beyond precedent in the list of American casualties, and has stirred the public heart to its swiftest pulsations of sympathy and grief. The memorable scenes of that terrible night at Lawrence, can never be effaced from the minds of those who witnessed them, while the thrilling records of the events given to the world have met and bedewed the eyes of millions. In view of the magnitude of the event and of the public interest in all that relates to it, more especially in the result of the investigation into the cause or causes of the calamity, the editors of this work have brought together a full history of the affair, with its scenes and incidents, and have affixed thereto a report of the investigation of the coroner's jury. In preparing this history, the editors have been involved in the arduous and almost incessant duties of daily newspaper life, and they rely more upon the interest taken by the public in all that relates to the disaster, than upon any merit of style. In fact, it is but a plain narrative of the tragical event, some connected history of which has been demanded by the public. The work is in a measure a compilation from those newspapers of the day, to the files of which we have had free access. We have carefully excluded all those incidents which have not been well authenticated. Arriving early on the ground, and remaining through the dreadful scenes of the succeeding fortnight, we believe that we have been enabled to select the true from the merely probable, and to give the reader a straightforward and reliable history.

THE LAWRENCE CALAMITY.

THE PEMBERTON MILL.

THE PEMBERTON MILL, the fall of which was attended with immense loss of life, and incidents more thrilling than the productions of the most imaginative writer,—a history of which is given in the following pages,—was one of the finest mills in the enterprising city of Lawrence. The structure was built, in 1853, by the Essex Land and Water Company for the Pemberton Mill Company, of which Mr. J. P. Putnam was managing director and financial agent. The mill was built from plans by Capt. Charles H. Bigelow, an engineer of undoubted reputation in his profession, and he gave his personal attention to the work upon it, assisted by Mr. Benjamin Coolidge, a gentleman of experience and integrity. The work of building was commenced about the first of January, 1853. The excavation was made by Mr. William Sullivan; the foundation was laid by B. D. Gowan, subcontractor under Mr. Isaac Fletcher, who took the contract from the Essex Company. The brick work was done by Messrs. J. B. Tuttle & Co., under the following contract, which shows the construction of the walls:—

“LAWRENCE, Feb. 14, 1853.

“It is hereby agreed between J. B. Tuttle & Co., of Lowell, Mass., brick masons, and the Essex Company, by Charles H. Bigelow, their engineer, that the said Tuttle & Co. shall build the brick work of Mr. Putnam's mill, and other buildings appurtenant thereto, in Lawrence, not including boarding-houses, on the following terms, viz.: Said Tuttle & Co. are to furnish all materials and labor for laying the bricks, for the sum of three dollars and thirty-seven and a half cents per thousand. The mortar is to be of such proportions of lime and sand as shall be satisfactory to the engineer of the Company, and the joints are to be filled in perfectly solid with mortar. If any portion of the brick work is required to be laid with a portion of cement in the mortar, it is to be done without any extra charge to the Company, provided the cement used in the work is furnished by the Company to the contractors. The walls are to be laid with a hollow space, four inches wide, for the circulation of air throughout, except when banding walls are necessary to connect the inner and outer sections of the wall together, and to form piers for the support of the beams of the floors. The general form and dimensions of the building are shown in the plan exhibited in the Essex office in Lawrence. The underpinning is to be set by the said Tuttle & Co., if they are required so to do; and the setting is to be paid for at the rate of six cents per square foot of underpinning seen.

The stone caps and sills of the doors are also to be laid by the said Tuttle & Co., as far as they are required so to do, and the setting is to be paid for at the rate of six cents per square foot, stone cutter's measure. The number of bricks to be paid for to Messrs. Tuttle & Co. is intended to be the actual number laid in the work, including the bulk of the stone caps and sills of the windows, for the setting of which no other charge is to be made, and making no deduction for the holes for the beams. The bricks will be delivered to the said Tuttle & Co., on the cars, near the head of the canal in Lawrence, whence they are to be taken, and the cars returned without unnecessary delay. A satisfactory count of bricks received shall be kept by the said Tuttle & Co., sufficient to show that the whole number intended to be delivered is received. The whole of the brick work is to be executed in a thorough and workman-like manner, and to the satisfaction of the engineer of the Company.

"The work of the main mill building is to be executed with a view to its completion by the middle of July, 1853.

"Payment shall be made for the above work from time to time, during its progress, so that the whole amount paid shall at no time exceed three-fourths of the whole sum due, until the work is completed satisfactorily, when the remainder shall be paid.

"Signed,

J. B. TUTTLE & CO.,

"CHARLES H. BIGELOW,

"Engineer, Essex Co."

The carpentering was done by Messrs. Dodge & Knowles, of Lowell, men of great experience in buildings of this character.

Fuller particulars of the construction of the building will be found in the report of the coroner's inquest, appended to this work.

The mill was heavily loaded with first-class machinery, and commenced operations in the fall of 1853. Work was continued without material change in the class of manufactures or in ownership until the disastrous season of 1857.

At that time manufacturing was depressed to an extent not known before for years. The owners became involved and the property was offered at auction, work having for some time been suspended, and it was purchased by Messrs. George Howe and Edward Nevins, two gentlemen of great experience in manufacturing.

The mill was started again under the corporate name of the Pemberton Manufacturing Company. The purchase was made on the 8th day of February, and the machinery, which had long stood idle and silent, was again sending forth the hum of industry early in March. With the return of prosperity, and under the energetic management of the new proprietors, the mill was driven with a full force until the day of the accident, January 10, 1860, when at once were destroyed the lives of nearly a hundred human beings, a much larger number were wounded, and the prosperity of the owners was seriously checked, while it awakened a feeling in the country seldom equalled, and cast a deep gloom over the land.

The following is an accurate description of the mills with its stock of machinery, and the work it turned out at the time of the catastrophe:—

The main building was five stories in height, two hundred and eighty feet long, and eighty-four feet wide. There were besides—

An ell six stories in height, sixty feet by thirty-seven;

A weaving shed, one story high, one hundred feet long, and thirty-six feet wide;

A dyehouse and picker building, four stories high, and one hundred and forty feet long, and sixty feet wide;

A cotton-house, two stories high, one hundred feet long, and forty-eight feet wide ;

A repair shop, two and a half stories high, fifty feet long, and twenty-five feet wide.

The last three buildings were not injured by the fall or by the succeeding conflagration, being detached from the main mill. The ell and the weaving shed remained without damage until the fire broke out, which communicated with them from the ruins of the main building, with which they were connected.

The second story of the dyehouse was used for weaving, and contained sixty looms. The second story of the cotton-house was also used for weaving and contained one hundred looms. Eighty-four looms were accommodated in the weaving shed.

Of the main building, the different stories were occupied as follows :—

The first story was used for weaving. The number of looms in operation here at the time of the ruin of the mill was about four hundred, making the whole number of looms in the mill about six hundred and fifty.

The second story was devoted entirely to carding machinery, of which there were in operation in this room as follows: One hundred and seventy-six cards; twenty-eight railway heads; sixteen drawing frames; eight slubbers; fourteen fly frames; four card grinders.

In the third story were machines for spinning and twisting, as follows: Seventy ring spinning frames, one hundred and sixty spindles each; fourteen ring twisters, one hundred and sixty spindles each; and two Mason mules, six hundred and eight spindles each.

In the fourth story were carding, spinning, and drawing-in machines, as follows: Forty cards; three reeling heads; four drawing frames; two slubbers; nine fly frames; fourteen Sharp & Roberts' mules, six hundred and seventy-two spindles each; twenty drawing-in frames.

In the fifth story were machines for dressing, warping, spooling, winding, quilling, and reeling, as follows: Twenty dressers; twenty-five warpers; nineteen skein winders; eight spoolers; two quillers; twenty-two reels (in the ell, in connection with the machinery in the main building).

The first story of the ell was used for packing; the counting-room was in the second story; the third, fourth, and fifth stories were occupied as finishing and cloth rooms; and the sixth story was used for reeling.

Whole number of looms in the mill, six hundred and fifty.

Whole number of spindles, including those for twisting, twenty-nine thousand.

The goods manufactured were fancy cottonades, ticks, stripes, denims, and flannels.

The average consumption of cotton, when the mill was in full operation, was sixty thousand pounds per week.

The average production of goods was about one hundred and fifteen thousand yards per week.

The machinery of the mill was driven by three turbine wheels, two hundred horse power each. The wheels, the main gearing, and the pen-stock were not injured. The mill was heated by steam, generated in a large boiler which occupied a building by itself, between the main building and the cotton-house. From this arose a chimney, one hundred and forty-two feet in height which withstood the violence of the crash.

The mill was situated south of all the other cotton factories, extending with its connected outbuildings from the canal to the river.

The mill and property connected with it cost in the neighborhood of \$800,000. The present owners bought it at auction for \$325,000.

The property was insured as follows:—

Boston Manufacturers' Mutual.....	\$40,000
American, of Boston.....	20,000
National, ".....	20,000
Boylston, ".....	15,000
Neptune, ".....	15,000
Prescott, ".....	10,000
Eliot, ".....	10,000
City, ".....	10,000
Home, of New York.....	15,000
N. American, ".....	10,000
Manhattan, ".....	10,000
Metropolitan, ".....	10,000
Humboldt, ".....	10,000
Fulton, ".....	10,000
Lamar, ".....	10,000
People's, ".....	10,000
N. Y. Fire and Marine, of New York.....	10,000
Continental, of New York.....	10,000
Rhode Island Mutual, of Providence.....	17,500
Firemen's, ".....	17,500
Manufacturer's Mutual, ".....	17,500
Providence Washington, ".....	15,000
Commercial, ".....	15,000
Merchants', ".....	15,000
American, ".....	10,000
Gaspee, ".....	10,000
Hartford, of Hartford, Conn.....	15,000
Royal, of London.....	12,500
Springfield Fire and Marine, of Springfield.....	10,000
Mechanics' Mutual, of Worcester.....	15,000
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	\$415,000

The building was well protected against fire. The floors were of heavy planks, and the beams and rafters were exposed and painted. Perforated iron pipes ran at right angles through each room. Suspended from the floor beams, steam pipes ran in the same manner. The water pipes connected with the hydrants of the city water works, and with five force pumps, were located in the picker-house, which was just in the rear of the main building. There was a stationary hose and fire apparatus in each room.

Nearly a thousand operatives were employed in the mill. The temporary suspension caused by the involved condition of the first company had caused destitution and suffering among a large population dependent upon it for support. Its suspension then having an effect so wide-spread, its fall without warning, when in full blast of successful operation, spread terror, anguish, and distress, through the same circle. Some six hundred operatives were at work in the main building at the time of the catastrophe. The life of every one was attacked with imminent peril, and the escape of five-sixths of them from instant death now seems almost a miracle. The history will show something of the thrilling incidents connected with the disaster, and the suffering which it occasioned, happily relieved, where human aid could relieve, by the bounteous streams of charity, never so thoroughly awakened. But the disfigured corpses of the dead, and the anguish of the heart-broken and desolate, are results which charity could not obliterate, and kindness could not drive away.

THE CATASTROPHE.

THE most heart-rending calamity of the age will forever distinguish the Tenth Day of January, 1860. On that day, at thirteen minutes before five o'clock, in the afternoon, the Pemberton Mill, in Lawrence, Mass., fell to the ground without a moment's warning, and buried a large number of operatives in the ruins. The destruction of the whole of the main building was complete, and the succeeding calamity of fire burned and destroyed all that the crash had left.

The following announcement of the catastrophe was sent from Lawrence to the Associated Press. The first details given that evening were hastily written in the midst of great excitement, and were subsequently proved to be full of errors:—

“LAWRENCE, MASS., Jan. 10, 6 P.M.

“One of the most terrible catastrophes on record occurred in this city this afternoon. The Pemberton Mills fell, with a sudden crash, about five o'clock, while some six hundred or seven hundred operatives were at work. The mills are a complete wreck, and some two hundred or three hundred are still supposed to be buried in the ruins. At present it is impossible to give any thing like a correct account of the loss of life, but, from the best authority, it is believed that at least two hundred are dead in the ruins.

“*Midnight.*

“Within the past ten minutes the whole mass of ruins has become one sheet of flame! The screams and moans of the poor, buried, burning, and suffocating creatures can be distinctly heard, but no power on earth can save them.

“*Half-past one o'clock.*

“The Pemberton Mills are now a flat, smoking mass. Brick, mortar, and human bones are promiscuously mingled. Probably not less than two hundred human beings perished in the flames! The fire made quick work, burning not only the main buildings, as they lay flat, but spreading to the material that had in kindness been removed.”

The writers of this proceeded by the last train to Reading, at nine o'clock, on the evening of the disaster, and from thence took a team to Lawrence. The excitement and horror which had filled the city spread far around in the neighboring country. Approaching within five or six miles of the city, between twelve and one o'clock, people were found riding and walking to or from the scene of disaster. Every house was lighted up, and knots of people stood by the roadside, eagerly listening to the latest news. At that distance, a bright light was seen reflected in the sky, and it was afterwards found that the devouring element had seized upon the pile of fragments, obliterating all hopes of saving any of those who had not been reached, and ending all the lingering misery with a misery more intense, though happily shortened. As the city was neared, the appearances of excitement increased. The whole community seemed to be abroad, and a wild throng gathered about the ruins, which were still fiercely burning. The whole building was completely demolished, and the fire had eaten its way to the bottom of the rubbish. A tall column on the south side, and a similar one opposite and near the canal, with a small portion of one end of the building, alone were standing. Engines were about the ruins, throwing water into the smoking and burning mass, and thousands of people were crowding the vicinity. The canal had been bridged with rafts of boards thrown on the cracking ice.

We arrived at one o'clock, and even at that hour found a large part of the population around the scene of disaster. Many houses had had sufferers returned to them, and there was anxious watching. The City Hall was made a temporary hospital and dead-house, and thousands flocked there, in the sad hope of discovering friends and relatives among the dead and wounded; for those whose bodies had not been found were known to have suffered a more horrible fate. Many who had escaped the bruising blows of the falling mass were reserved only for the more terrible death by fire.

Witnesses of the ruins, when those inside were crying for aid, describe the scene as appalling. Some of those lacerated by the falling machinery, with no hope of escape,

were excited to desperation. One who was early on the spot says that from the top and sides of the pile of walls and timbers, the operatives worked their way out, some unhurt, but a large number bearing serious bruises. Many more were wedged in by the timbers and machinery in such a manner that they were unable to assist themselves. The alarm spread through the town like wildfire, and the citizens forsook their places of business, and rushed to the spot. Women and children deserted their houses leaving the doors wide open, and thinking of nothing but the dreadful alarm. Such a panic never seized the inhabitants of a town in the land. Those who could work plied hands and tools briskly, all with heavy hearts, and spirits saddened by the frantic cries of some for help, the groans of the dying, and the disfigured corpses of those who had been killed. As the bodies of the wounded, dead, and dying were taken out, those which were recognized were delivered to their friends, and such as were not recognized were taken to the City Hall. In this way, as many as could find room upon the pile labored unremittingly.

From five o'clock until eleven the work continued with great energy; and, although many were taken out dead, and many more terribly wounded, there was an active hope that others yet might be saved. With steady blows the work proceeded, and barrier after barrier was removed as the laborers worked their way into the inner part of the ruins. Every advance exposed the dead and the wounded and the imprisoned, and they were borne away. After the panic of the alarm, which lasted for a few minutes, the men fell into companies, as they could work most advantageously, and labored with perfect discipline. Every moment some sufferer was released. Meanwhile, the relatives and friends of those employed in the mill were running about from place to place, where a new voice was heard wailing and moaning. Ever and anon, a glad cry arose above the lamentations, which told of some lost one found. Everybody taken to the City Hall was followed by a throng of mourners or inquirers. Those who were rescued alive, and slightly injured, were clasped to the arms of fathers, mothers, brothers, sisters, and friends, with cries of joy so vehement and wild, that they could not be distinguished from the shrieks of despair which indicated the discovery of the dead. Then followed a scene which can no more be described than the terrors of an earthquake or a battle-field.

When the workmen heard appeals for rescue, and saw those inside of the massive timbers, who could be relieved with continued effort, when even some were seen alive and apparently unhurt, to whom were extended words of hope and assurance, the dreadful cry of "Fire!" was heard, which spread dismay over the assembly, and covered the faces of the workmen with a despair that they had not before known. Almost superhuman exertions were made when this new horror developed itself; but the flames spread rapidly over the whole mass, and many of those who had escaped the dangers of the crash were literally roasted alive. In another part of this history we give some thrilling incidents, but no words can describe the anguish of this terrible moment. Those who were present will have the scene burned with fire upon their hearts so long as they mingle with or remember the eventful things of life. Then a more agonizing cry of despair arose, and the shrieks of those imprisoned mingled with the piercing screams of those outside, who foresaw the end of their only hopes in an awful death.

The fire spread with fearful rapidity. The water works connected with the mill were rendered useless by the destruction of the building; still there was a large amount of water poured upon the fire from various sources. Eleven streams were obtained from the hydrants of the Washington Mills, the fire department of Lawrence was prompt and indefatigable in its labors, and a steam fire-engine from Manchester, arriving at a late hour after the fire broke out, did efficient service. The ruins were

deluged with water, but still the presence of cotton waste, saturated with oil, the floors rendered combustible by the dripping of oil from the machinery, and above all the depth at which the fire originated and burned, rendered it difficult to extinguish.

Many of the operatives found shelter under the several floors, which, being very strongly constructed, did not fall entirely to pieces. But what was to them a protection from the crushing effects of the fall of the building, proved their final destruction. When the fire broke out, these floors shed the water like roofs, leaving the flames to rage beneath them, and the unfortunates were beyond the hope of rescue. Their groans and shrieks were heart-rending, and the greatest exertions were made to save them, but in vain. The work of removing heavy machinery, immense timbers, large masses of brick work, and other *débris* of the factory, was necessarily slow, and the fire, which had been dreaded from the first, when it had once commenced, was uncontrollable.

And so work continued through the night, the firemen remaining at their stations, and every voluntary laborer doing his utmost.

At the first dawn of the morning the people collected again at the scene of desolation and death. Many had not thought of retiring to rest, and many more had not closed their eyes in sleep. Faces heavy with watching were clouded with a tenfold gloom. The morning bells, which had before betokened a returning prosperity, rang out like solemn death knells.

As an evidence of the solemnity of feeling which reigned through the night, it was interesting to hear the firemen lightening their labors at the brakes, and cheering each other to renewed exertions, not with idle songs and gay tunes, but with revival melodies and old-fashioned psalms.

Thus this terrible night passed away; in our chapter of soul-stirring incidents will be found much to add to the picture to which our whole narrative cannot do justice. The excitement was not confined to Lawrence. It not only extended into the suburbs, and brought forth nearly the whole population, but in Boston, and all the manufacturing towns of New England an intense feeling stirred the people. A feeling so universal and all pervading has had no equal in the age. In another part of this history will be given the results of the catastrophe, which will stand a mark for reference for ages to come.

The fall of the mill was so sudden that no time was allowed to those inside to examine the cause of it. From the evidence we have, it seems that it first commenced to fall near the centre of the south end in the fourth story, and that the whole structure was pulled in by the weight of the machinery and the strong connection of the walls. Those outside who saw the fall noticed first the top giving way, near the south end, and describe it as falling in towards the north end, as fast as a person could run. The floors seem to have descended without breaking apart, and this accounted for the large number saved, while it shows that many more would have been rescued but for the fire, which put an end to the labors of the workmen, and destroyed the hopes of those who were looking anxiously for friends and relatives. Many of the persons who were rescued from the ruins alive, owed their escape from instant death to the arches of the looms, which resisted the immense weight of timbers and machinery, and left a space between the floors in which the sufferers could move about.

No opinion in regard to the cause of the disaster need be given here; the best evidence on this head will be found in the report of the coroner's inquest in another part of this work, where the statements of eye-witnesses are given, from which the opinion of the public will be made.

The crowd of visitors at the scene of the calamity on that evening was continued through several days; even for a week after the disaster the city was crowded with an

unusual number of people whose curiosity led them to view the scene where such a tragedy had been enacted. Thousands upon thousands of people thronged the town by every means of conveyance, and filled the streets with an active multitude, such as they had never before seen.

AT THE CITY HALL.

As the wounded and bodies of the dead were taken from the ruins, such as had homes, and were recognized by friends, were immediately taken away by them, but the larger portion were carried directly to the City Hall, which had immediately been fixed upon as the most convenient building in the city, to be used as a hospital for the injured and a receptacle for the bodies of the dead. Men at once commenced conveying them thither, the wounded upon litters, and the dead upon biers. And as these little corteges proceeded along the streets, in quick succession, the men marched with rapid but careful step, and with almost sinking hearts. Each was followed and surrounded by a crowd of excited persons, ministering to the comfort of those not already dead, or filling the air with cries, as they saw the death-stamp fixed unmistakably on the features of friends and relatives. At the door of the building, an immense number congregated, and the lower floor was so full of people that access to the second story was very difficult. They even thronged the stairs, and pressed close to the door of the hall, where policemen were stationed as a guard. On the arrival of each body the surging crowd divided, and it was conveyed within.

The Temporary Hospital.

The main hall was converted into a temporary hospital, and to this were immediately sent mattresses, blankets, and sheets, bandages, cordials, and medicines, from every direction. The ladies of the vicinity promptly contributed beds and blankets, and druggists liberal supplies from the contents of their stores. The settees were cleared from the floor, and piled in tiers along the walls. Next to these were placed rows of mattresses, arranged in close proximity on three sides of the hall, and upon them the wounded were carefully laid as they were brought in. The platform at the head of the hall was used as a dispensary. At half an hour past midnight, scarcely a mattress was untenanted, and the groans of fifty-four wounded persons were mingling with the heart-rending cries of relatives and friends. But few, except those whose presence was necessary to the suffering and dying, were admitted to the room. A large number of physicians were in attendance on the wounded, while others, exhausted with continual watching, working, and waiting, over broken limbs and bruised bodies, reclined on a vacant mattress for a brief rest. Many whom years of practice might have excused from sensitiveness to the sufferings of others, performed their offices with tearful eyes, and all worked with compassionate countenances, and the gentleness of sympathetic natures. Some of the sufferers were groaning in agony, some were wild with delirium in the last moment; others quietly breathed their last, or bore their suffering in silence. Everywhere was blood, bruises, and broken limbs. Nearly every one of the wounded here had a leg or an arm broken. To one unacquainted with the scenes of the dead-house or the hospital the spectacle was loathsome, sickening, horrible. But the painful cries of the wounded were overshadowed by the dreadful mental anguish of their heart-stricken friends. Nearly every couch was the centre of a little circle of weeping ones; and where the approach of the Angel of Death was denoted by the pallid countenance, the glassy eye, and the shortened breath, those who had assuaged

their grief by performing kind offices for the dying, now that they were no longer necessary, gave themselves up to paroxysms of grief. And after the eye was closed in death, and the pulse which had beat with uncertain motion was still, and the voice silent forever, when the awful sense of their bereavement came upon them, their cries seemed frantic, and the intensity of their grief so overpowering, that others were urged to restrain by force the violent demonstrations of their wild despair. In passing around the hall, gleaning from the most calm and collected, the first details of the dreadful catastrophe, scenes which were enough to move the heart of the most impassive, were constantly meeting the eye.

On one pallet lay a little girl, with a beautiful pale countenance, knit with the suffering she could not conceal, yet un murmuring. She was watched over by her weeping father, and all hearts thrilled in sympathy with his, as the physician announced his hope that she might recover. Frail hope! An hour later, she was heard gasping for breath, and bidding adieu, in whispering accents, to those about her, for, as death approached, her consciousness was unimpaired, and her heart-broken father could treasure up as his only consolation, that she died in his arms, and was not afraid of death. Her angelic countenance as she breathed her last will be a living picture in the memories of those who stood about her, and will soften with its serenity the recollections of that night of death.

On another was a young woman, at times unconscious, and again crying for that assistance which nothing but death could render. She had several broken bones, a fractured skull, and severe internal injuries. She could not move without intense pain, and her sufferings drew tears from the eyes of all who saw her face, and the agony depicted upon it. Half a dozen disconsolate friends were about her weeping, for the physicians said she must die, and their prayers ascended that her misery might be shortened, and relief from pain be given, even in the end of life. Their petitions were not long unanswered.

On one side of the hall, with their couches near each other, lay three young girls, all dying. Their pain had ceased, and two were sleeping, while the third gazed about her as if unconscious of the reality, and trying to fathom the mystery of the scene. An hour later and her spirit had fled, while one of her companions was also quiet in her last sleep.

But the most affecting sight of all was that of a poor German, who was dreadfully injured. No mother's hand smoothed his pillow, no brother nor sister nor friend was near, to cheer him in his hour of pain and trouble. He was insensible to what was passing around him but not unconscious of suffering; and his incoherent ravings touched the hearts of all. His fate was uncertain, for the crisis had not come. At a later hour a little German lad found him, and with his young heart affected by the desolate condition of his countryman, nursed him with a devotion which spoke volumes for his love of fatherland, and his tenderness for others' sufferings.

Many were there whose homes were far away, and whose relatives had not been apprised of their condition. But they found true friends in that hour of need. Young women and matrons, like ministering angels, hovered around them, cheered them with hopeful words, and assisted the labors of the physicians with all of woman's gentleness and skill. Through that night they watched and labored, closing the eyes of the dying, and aiding those who lived.

Soon after the building fell, and the great number of the wounded became apparent, despatches were sent to neighboring towns and cities for medical aid, and, generally, liberal response was made immediately. Twenty-two physicians came from Lowell, ten from Haverhill, six from Manchester, two from Bradford, and two from Methuen, and one

from Derry, N. H., and one from Brooklyn, N. Y., who were passing in the cars, stopped and volunteered their services. Every member of the medical profession in Lawrence, also went to the aid of the sufferers. During the succeeding forenoon several physicians arrived from Boston, and many others from surrounding towns. Some of these took the places of those who had been earlier on the ground, and whose presence was required by patients at home. When the condition of all the wounded had been made comparatively comfortable, and it had been ascertained that such as remained in the ruins were dead, and not before, they were left to the attentions of the Lawrence physicians.

The agonizing scenes of the following forenoon cannot be described to the reader, — only those who viewed them can comprehend them. During the early part of the day, all of the wounded, and nearly all of the dead, were removed to the places where they had boarded. The recognition of friends, or the failure to find them, caused the most violent outpourings of grief. The corridors and stairways were crowded all the day. Men and women pushed each other in frantic excitement, and the shrill cries of the women mingled with the deep groans and sobs of sturdy men. Perhaps the most painful of all was the emotion of fine-looking New England matrons, from the distant country towns, who had sons or daughters in the fated mill. Coming to the City Hall, they found the wounded removed. All of the officers who had charge of the room were busy, and were flying in every direction. "Where are those who were wounded?" was the continual question. They were scattered to their various boarding-places, and there they were sought. Too often kind and loving fathers and mothers were denied the sad consolation of finding their beloved ones among the wounded, or even among the dead. A fate still worse had been suffered by many of these; and then the flood of grief was terrible indeed. Every chance of hope was eagerly seized upon, until the inquirers found those they sought in the list of the wounded or dead, or failed to find them at all, and the number of those whose investigations ended only in despair, was large enough to excite the minds of all with pitying sorrow.

The Dead-Room.

A large room on one corner of the hall had been set apart as a principal depository for the bodies of the dead not identified, and this was literally covered with mangled corpses. Men and women, old and young, lay there, a ghastly sight to behold. Twenty-seven bodies had been carried there, and nearly all presented a spectacle of frightful wounds and bruises, and showed signs of painful death. A few only of the faces were calm and placid. They lay as they had been recovered from the ruins, some nearly naked and covered with blood, or blackened with the dirt and smoke. The faces of many were so disfigured, that humanity demanded they should not be exposed. Another room below, when this was filled, was used as an additional receptacle.

The scenes at these rooms were dreadful, as people congregated in large numbers to recognize their friends. Many fainted at the sad discoveries they made, and many others seemed heart-broken; from the upper room to the crowd below, came one continual wail. At frequent intervals, conversation was hushed as the lamentations of bereaved mothers, widows, and sisters, broke upon the ear.

During the day succeeding the disaster, the bodies were removed from the upper room to the one on the lower floor, where were taken for identification all those which were subsequently recovered, and here were continued for several days all those scenes of anguish which were consequent upon the recognition of bodies. As fast as the dead were recognized, they were removed by friends, or taken to the receiving vault at the cemetery.

THRILLING INCIDENTS.

In connection with the Lawrence calamity, more thrilling incidents are told than of any thing in New England, since the Revolution. These in part will fill out our narrative of the fate of the mill and its dreadful consequences, and as they pertain to the scenes at the ruins and at the City Hall, we give them a place here. The awful grandeur of the scene of the catastrophe, the suffering of the wounded, and the anguish of their friends, will best appear in these detailed incidents, most of which have been printed in the Boston papers, and are principally from the *Journal* and *Traveller*. Only those are given which have been well authenticated, as we believe there is no necessity of drawing upon the imagination where there is so much that is thrilling and tragical.

A rumor was spread through the town at noon, on the Thursday succeeding the accident, that, an hour before, a man had been rescued from the ruins, alive and comparatively unhurt, so that he walked away joyfully to his abode. Several men of undoubted integrity circulated the story with a degree of candor and earnestness which commanded respect and fed the great spirit of wonder. The affair was talked all over the town. The story changed, and the rescued one was a woman. After the most patient investigation, there could be found no semblance of truth in the story, or any thing for its foundation. Those who started it must have made up their judgment from a distant point of view, or else they were imposed upon. Another rumor reigned for a while that a hand was seen waving from a hole in a standing chimney, and that a man was subsequently rescued therefrom, having entered the chimney through a flue, and climbed an iron ladder on the inside. These reports doubtless arose from imaginations laboring under a high degree of excitement.

Thus many rumors arose from the excitement of the people, founded neither on fact nor probability; such as we can vouch for, we have collected here.

Attempted Suicide of an Overseer.

Among the sufferers in the ruins at the time the fire commenced was Maurice Palmer, of Rochester, N. H., an overseer. He was much beloved by his friends, and while the digging was going on his voice was recognized. He was nearly reached when the flames broke out. He implored his friends to save him quickly, or he should die. They struggled to reach him, but the flames swept around them. He was confined and could not resist them. As the heat of the fire began to be felt, his horrible death seemed inevitable. He was able to move one hand and drew his knife, saying he should commit suicide rather than burn to death. His rescuers pressed on, but his hope of aid gave out, and he drew his knife across his throat. Soon after, they succeeded in removing him, and his self-inflicted wound was found not to be dangerous, but he had suffered severe internal injuries which rendered his recovery impossible. He was taken to the City Hall, but expired shortly after from the effects of the wounds received by his fall, and his sufferings while immured within the fallen walls.

Coolness in Danger.

Some exhibitions of heroism and presence of mind accompanied the spectacle of the excited multitude. Miss Olive Bridges, of Calais, Me., who worked in the fifth story, seized the hoisting chain of the elevator, and went safely down five stories to the ground, and escaped from the building without injury. Through the whole night she was at the City Hall, passing like an angel of mercy among the couches of the sufferers, anticipat-

ing every want, relieving pain, and breathing words of comfort and consolation to the wounded and dying. Several others saved themselves by the same means, performing feats which for coolness in danger did them infinite credit.

Thrilling Experience.

Henry Nice, a brother of Thomas Nice, whose wife was killed in the ruins, relates an interesting narrative of his experience. He was employed in the boiler-house, and at the moment of the disaster was engaged in putting a wick into a lamp. He heard a noise which he cannot describe, and stood up for an instant, when he was struck on the shoulder by a heavy article. He thrust himself head foremost against a door opening outwards, and fell into the porch, the door and the space about him being instantly filled with brick, and his body confined to the most uncomfortable limits. A cloud of steam and dust penetrated the *debris* and nearly suffocated him, but by almost superhuman efforts he succeeded in digging a passage through the ruin and reaching a place of security. Instead of fleeing from the scene of the disaster, he turned back to rescue those still living. Upon the floor of the card-room he found a girl, who boarded at No. 5 Pemberton Corporation, who subsequently informed her rescuer that she was alone in this country, but had a mother in Ireland. A piece of shafting lay across her neck, her knee was seriously lacerated, and the rim of a "roping can" was pressing into her back. Nice obtained a saw, and cutting away the boards and timbers from under her, had the satisfaction of seeing her borne away to a place of safety. He then continued the work of rescuing his unfortunate companions. Darius Nash, the third hand in the spinning-room, fell with the factory. Nice heard him scream for help, and creeping on his hands and knees amid the tangled ruins, he found Nash and a young girl lying close together. The latter was cheerful, and urged Nice to remove her companion first, as he was lying on her leg, being confined there by a spinning frame which rested on his side. Nice thrust a strip of board through a hole above him, which attracted the notice of others, who cut a hole in the floor, through which Nash was drawn, badly hurt. Every effort was made to remove the machinery which imprisoned the heroic girl, without avail; and the fire sweeping over the spot, her young life went out amid the scorching heat.

Miraculous Escape of a Little Girl.

On Tuesday evening, before the fire broke out, while two thousand men were exerting every energy in rescuing the survivors from their living sepulchres, and the dead from the rubbish which buried them, a party came upon the body of a little girl. She lay apparently crushed beneath a ponderous block of iron, weighing over a thousand pounds, and which covered her body to her chin; her back was pressed against a huge timber, one of her arms was thrust to the elbow through a ring in a piece of machinery, and she was completely wedged in by heavy iron gearing. Intent only on preserving her features and form as little disfigured as possible, the men labored carefully to remove the block of iron without crushing her still further. Four of them tugged upon it, but could not stir it. After they had made several ineffectual attempts, a stalwart and athletic man, in passing, caught hold of it, and with marvellous power, aided by the excitement which the scene produced upon him, he succeeded in loosening it. The other rubbish was then removed, and the body taken out, when, what was the surprise and joy of the men to find that they had rescued a living girl instead of a corpse, and more, that her injuries were not fatal, but comparatively trifling. The heavy iron had met with some more powerful obstruction than her body, and her life was spared as if by a miracle. Had the pressure upon her body been but slightly increased, or had the

least carelessness been allowed in extricating her, she would have been another added to the list of victims.

Singular Recovery of a Woman.

In another spot near by, and at about the same time, the body of a woman was extricated from the ruins by some of her relatives and friends. The bricks and iron had buried her so tightly that no hopes were entertained of her life, and when the body was at last drawn out, the little circle of friends found their worst fears confirmed. Her husband took her carefully in his arms, and, with a heart throbbing with grief, bore her towards his home. A number of relatives were there awaiting her, and, when they saw her lifeless form, cried out in sorrow. Suddenly, the woman revived, and throwing up her hand, cried out, "*I'm safe — I'm safe!*" She was received as one risen from the dead.

A Husband finds his Wife.

Thomas Nice recognized the body of his wife by a ring she wore on her finger. He had searched anxiously for her body, as her name was in the list of missing. A charred and misshapen mass brought into the room of the dead he examined, as he examined all. Upon a bone in the clasped skeleton of the hand he found a ring; upon it was engraved his own name. It had been presented by him to his wife on their happy bridal-day. When he found this sure token, his sad consolation triumphed for a moment over his burning sorrow. He waved his hands aloft, and cried for joy. Looking again upon the blackened corpse, his loss fell, as it seemed, with a deadening weight upon his soul, and all was changed. He fell upon his attendants, venting the wildest grief; nothing could command his attention beside, and he was borne from the room raving wild as a maniac, exhibiting a feeling as strong as could be pictured by the most extravagant imagination.

A Mother finds her Daughter.

Mrs. Barrett, wife of James Barrett, of Lawrence, had lost a child. She, too, was a frequent visitor at the dead-house. Saturday afternoon she came, accompanied by a younger daughter, bringing a miniature likeness of the lost. The miniature represented the features of a young lady of unusual personal attractions. A lively beauty danced in her youthful, fresh, and rosy face; an expression of a nature almost angelic beamed in her eyes. With this, the mother and sister came seeking the original among the dead. The lost one was found, but the fair face was burned away, the lithe and graceful form was now a shapeless trunk, which was recognized only by the fabric of the dress she wore, a small part of which was not destroyed. The mother threw herself on the remains; she aroused herself and gazed upon the miniature, and from that her eyes again wandered to the remains of her child. She fainted, and was borne away. Those present turned away heart-sick. Those who had stood firm through all until now, melted until their sympathy gushed out in tears that fell like summer rain.

A Sister finds her Brother.

Among the missing first reported was James Harty. He came from New York nearly a year before the accident, accompanied by his only sister — his only relative in America. They had long lived for each other alone. His form below the head was found to be perfect in death, only the flesh was literally roasted by the fierce heat. His body was recognized by a key and portemonnaie in his pocket; added to this evidence, his boot was pulled off, and upon his stocking was found his initial letter, which had been

carefully threaded there by his dear sister, who now sought him, and thus found him in her despair. The trunk of the deceased was taken to the City Hall, and the key found in his pocket fitted the lock. To add to the grief of the sister, while it proved again that the vilest depravity can exist among the most awful scenes, the trunk was broken open by some villain while it remained at the City Hall, and all that was practically valuable, as well as all that was highly prized as sacred mementos, was stolen from it.

Mourning Mothers.

For several days after the accident, a body had laid in the dead-room for identification. It was at last placed in a coffin, and a little after, Mrs. Burke, a woman about forty years of age, begged to see the body. She had long been inquiring for a missing daughter, named Mary Burke, seventeen years of age. She had a piece of the dress her daughter wore into the mill on the day of the accident. It was compared with the fragments of the dress brought in with the remains, but the latter was so faded that, though a resemblance was fancied, it was not deemed positive proof of identity. The woman then brought in her husband, Andrew Burke, and this time a comparison of the fragments proved the identity beyond a doubt. As soon as this was established, the poor woman uttered a cry, half of anguish and half of joy, and falling at once on her knees, implored "the blessing of God on the kind, good gentlemen" who had been so good to the "Christians," and that they might "have the gates of Paradise opened to them." Then she fell on her knees before the blackened pile, mourning in the wildest agony. "O my Mary, my Mary!" she cried; "I have murdered you—I have murdered you! O God, forgive me for ever coming to America! Oh, forgive me, my darling daughter!" Her wild paroxysms of grief had long continued in this strain, and the increasing crowd was urgent that the mother should be removed. Then she bent upon her knees before the keeper of the room, and begged him to handle carefully the remains of her daughter, and to send them to her in a coffin. The keeper promised again and again, and the anguish-stricken mother was taken from the room, moaning in that low, despairing tone which comes only from a soul fearfully racked by grief. She subsequently returned and seated herself despairingly by the side of her daughter's coffin, refusing to be comforted.

Female Firemen.

The women of Lawrence, heroines in every sphere during the fearful scenes of the hour, won laurels in the fire department, also. When, after hours of extreme exertion, the firemen, worn down and quite exhausted, called for help, a bevy of ladies who were standing on the sidewalk in Canal Street, flew over to the engines, and, "manning" the brakes, worked the machine amid the cheers of the firemen.

Roasted Alive.

One of the engineers of the fire department related the following: When the fire was beginning to rage, and before it had stifled the cries and groans of those in the ruins, he, with others, forced his way against the smoke and flame, to try and rescue some of those whose voices he could hear. Suddenly, he caught a glimpse of three persons, imprisoned by a crumbled partition—two men and a woman. He even seized one of the men by the hand, and hoped to draw him out, but the crackling of the flames around him, and the warning voice of an officer, impelled him reluctantly to desist, and by a timely retreat to save his own life. Neither of the three persons appeared injured at all, and they must have literally roasted alive.

A Child's Heroism.

On the night of the accident, a little daughter of James Bannon, ten years old, was in the ruins, and the flames were coming. She was pinned fast by the ruins, and could not be rescued. She took her pay bill from her pocket and handed it to another girl near her, and said: "You will be saved, I shall not; give this to my poor father and bid him good-by for me."

Rescue of Two Girls.

Among the ruins, an opening in a portion of the floor was shown which is a witness to the noble conduct of Mr. Fox, of the Washington Corporation, and another gentleman; while the fire was spreading from the place where it caught, they were actively engaged in the labor of rescuing persons, and trying to extinguish the flames, when they heard cries issuing from the basement story, near the centre of the south side of the building. On proceeding there, they found that two girls, in the basement, entirely uninjured, had been blocked in by the ruins about them. They tried in vain to gain access to the place where they were confined, and as the flames were rapidly approaching, a death of torture seemed before the poor unfortunates, whose piteous cries greeted their ears. Finally, they procured a saw, and after persevering labor succeeded in cutting a hole through the solid floor, and extricating them from it.

A Missionary in the Ruins.

The following paragraph describes the heroic calmness of a young lady in the ruins, which deserves especial mention:—

She is a girl of more than ordinary capacity, and the most unassuming piety. She worked in the mill, and her mother worked with her. On the day of the accident the mother left the mill in the afternoon, as her work had given out, regretting her loss of time. A short time after, she heard the terrible alarm. She ran to the mill filled with anxiety for her daughter. No heart beat more wildly in the conflict of hope and despair. After a half-hour, which seemed an age, the daughter was found, taken from the ruins, and restored to her mother, almost uninjured. The joy of the meeting relieved the prolonged anxiety of the mother. Her strength, which had been nerved by excitement, sank when she found her daughter safe. On receiving and returning the wild embrace of her mother, the girl exclaimed, with sparkling eyes and an expression almost angelic, "O mother, I have been so happy!" She had looked forward to death without fear, even with a joy she had never known. A second hand and several others were in the ruins near her. They had fallen from the fifth story, and were penned in by the machinery and timbers, expecting every moment that the roof would settle upon and crush them. Quite a number were near her, many of them wounded, and some of them in the agonies of death. Yet after this shock and its terrifying effect, while death seemed near and certain, the young girl was self-possessed and calm. She exhorted those around her to prepare for death, losing no time and lacking no earnestness, when time and persuasion were so precious. She continued in this way, forgetting all thoughts of life, and preaching repentance until she was discovered by those who were searching among the ruins, and borne away. These facts, which the Christian heroine was too modest to tell, are well authenticated by those who were near her when she was in the ruins, and when she met her mother.

A Brother finds his Sister.

A brother of Lucinda Gilson, one of the operatives buried in the ruins, having missed

his sister, brought to the keeper in charge of the dead-room, a fragment of the skirt which she had on when last seen alive. The keeper compared the sample with a scorched patch of clothing found upon a body recently deposited in the dead-room. It was found to correspond, and upon the strength of this evidence, the sorrowing brother claimed the distorted and charred remains of one whom he had so lately seen in the full vigor of health.

Saved by Mutilation.

One girl who was at work in the second story, had two fingers caught in the machinery. In an agony of despair she literally tore them off, and crawled out through an opening in the ruins, stripping her clothes completely from her body. Her hip was badly injured. Her companion, who escaped through the same opening, was dreadfully bruised and scorched. A few days after, the fingers were found by the workmen and transmitted to the girl who had spared them for her life.

A Boy's Assistance.

A "filling" boy named John Shaw, was at work in the lower weave-room when the mill fell. He soon extricated himself from the ruins, and looking back, he saw the hand of Amanda Neal thrust through an aperture. He succeeded in rescuing her, with only her stockings on her feet. She complained that she could not walk upon the snow; whereupon, he told her she should be thankful that she had her feet left to walk upon. Shaw saved two other girls, sisters, named Thompson, cousins of Miss Neal, who informed him of their peril.

Presentiments of Danger.

That a fear of the insecurity of the mill and its impending ruin had existed in the minds of some of the operatives, appears from a conversation which occurred on Thursday prior to the accident in the weaving-room over the cotton-house. On that day, the weather being stormy, Miss Maria S. Yeaton inquired anxiously of Mr. Albert Moses, one of the overseers, if he thought there would be a freshet. "Why do you ask?" said Mr. Moses. "Because," replied the lady, "we are always afraid of the big mill" (meaning the main building), when the water is high."

A girl named Mary Desney, from Anderson, Scotland, at the urgent solicitation of a Mrs. Kendrick, visited the Pemberton Mill on the day of the disaster, in quest of employment. The overseer whom they were desirous to see, was not to be found, and Miss Desney, struck with a fearful presentiment of impending danger, hastened from the building, leaving it about ten minutes before the disaster.

A Girl's Experience.

A girl named Hannah Fannasey, thirteen years of age, daughter of a widow living at No. 87 Valley Street, was at work in the spinning-room, "doffing," as it is called. She went down with the ruins, and was not rescued until nine o'clock in the evening. She relates that nine men were about her when the fire approached the spot where she lay. All but three of the men were driven back by the furious flames. These men, Americans, stood by her, and at the risk of their own lives saved her from a fearful end. She had a brother, nineteen years old, who worked in the weaving-room. When the crash came, he ran to the window. The walls fell upon and buried him, though he cleared away the bricks and mortar, and jumped clear from the ruins. But in attempting to

avoid death by fire he had nearly perished by water. Running across the railroad track he stumbled into the canal, from which he finally emerged in safety. Impressed with the fate of his sister, he went back to the ruins, wet and shivering as he was, but could not find her. He then went home, sat down, and wept. His sister was among those who were saved and conveyed to the City Hall. She sustained a fracture of the femur, and suffered much at first, but finally recovered.

Hope and Despair.

One man found two young women in a comparatively comfortable position, and handed them coffee, with the cheering assurance that in fifteen minutes they would be rescued. But alas for the delusion of hope! The fire approached, and as it gradually neared the two sufferers, their entreaties to be saved were enough to make the stoutest heart quail. Men redoubled their exertions, but in vain; the flames enveloped the poor creatures, who perished before the eyes of their would-be deliverers.

A Grief-stricken Group.

The following paragraph is taken from a daily paper soon after the accident: At the foot of the stairs leading to the upper City Hall, sat all day four mourners, all females, awaiting the arrival of bodies from the ruins. Two had lost a daughter each, one a sister, and the fourth a cousin; and all that has been discovered of the latter were the shoes, which were recognized by a young man who recently put heels upon them. Together they sat, hour after hour, pictures of despair. Upon the arrival of a body they arose, joined the eager procession that marched into the dead-room, but finding no semblance of their lost ones, they returned to their post at the foot of the stairs to wait and mourn for days.

The Last One Rescued.

Mr. Ira D. Locke of Deering, N. H., who worked in the weaving-room, was the last person rescued alive from the ruins; he was not taken out until twelve o'clock. He was already scorched by the fire, and it was raging so fiercely about him that he directed his rescuers not to risk their own lives for his safety. His resignation prompted to new efforts. He lost his reason soon after he was rescued, and remained for several days in a critical condition, being badly burned.

Incident of Self-sacrifice.

When the accident occurred, Darius Nash and Lizzie Flint were at work near each other in the third story. The former looking up and seeing the mill at the southern end falling, exclaimed: "For God's sake, let us go to the lower end!" They took two steps in that direction, when he was struck on the shoulder by a counter shaft, and the two went down together. Miss Flint lay upon the floor, with the shoulder of Mr. Nash, borne down by the shaft, upon her leg with such force as to break it. His head rested in her lap; and in this position they both lay for several hours. She untied his handkerchief and loosened his collar. She complained of the numbness of her leg, and said she could get out if he would move his shoulder, which was impossible, the pressure upon it being so great as to burst the flesh upon the ball of his hand, in two places. She uttered no complaint, but when help arrived, she directed them where to work, saying to Nash, "They'll have to get you out first." While the men were at work, she fainted, and after her companion was rescued, other victims in the vicinity cried for assistance,

which probably misled them from the spot where she lay, and over which the remorseless flames soon after swept. Miss Flint belonged in East Pittsfield, Me. A brother came to Lawrence the day after the catastrophe, and sought in vain for his lost sister.

Escape of the Agent and Treasurer.

John E. Chase, agent of the Company, and S. G. Howe, the treasurer, were passing through the mill when the crash was heard. They rushed into the wing of the building, which remained standing. In passing out through the door, Mr. Howe fell, and was trampled on by several behind him before he could rise. He escaped, however, without injury.

Statement of James Tatterson.

A statement was procured from James Tatterson in regard to the fall of the building. He was a brother of Mr. Tatterson, who was overseer of the weaving-room, and was employed in that room, where he had been about a fortnight. He was standing near the south end of the building, on the lower floor, and was talking with Mr. Adams, the second hand in that department, when the first crash was heard. He looked up and cried, "What's that?" The floors from above came down, but the one he stood on seemed to remain firm. He jumped for the door at the south end, but was unable to open it, owing to its having been jammed in by the fall. He remembers the rest faintly, but he cut himself out in about twenty minutes. He was slightly bruised about the head. He thinks the lower floor was unmoved, because two little girls near him threw themselves under the looms and were saved. Mr. Adams, with whom he was talking, was sawed out of the wreck somewhat more severely injured. This man, after getting out, went the length of the building to the north end, and there found his brother getting out of the ruins.

Statement of John Ward.

John Ward, one of the operatives in the carding-room, in the second story, was miraculously saved, with his wife, who worked near him in the same room. We give his description of the accident and escape in his own words: "I was in the carding-room with the second overseer, lighting up. It was five or ten minutes before five o'clock, and we had got but few burners lighted. Suddenly, I heard a noise—it sounded like a loud, thundering crash over my head, and looking up, I saw the shafting coming down upon us, all over the room. I could not account for it, and was terrified. I stood nailed to the spot, and did not seem to have power to move, although I knew the building was coming on me. Then I heard the overseer shout, and I tried to jump out of the rubbish, but something struck me, and I was thrown senseless. I did not remain so long, but when I came to, I found myself buried in the rubbish, and did not expect to get out alive. I was all covered over with blood, from wounds on my face. I finally crawled up, and got to the top, and found a lot of ruins hanging over me, which like to have taken my life. But I succeeded in getting out. I passed by a dead girl on my way, and two other mangled bodies before I got out. When I was first knocked down, I fell beneath a large grinding stone, which was too heavy to give way to the weight above, and this saved my life. When I fell under there, I saw the walls over me all falling, and the floor giving way all around me."

Statement of Rosanna Kenney.

Miss Rosanna Kenney, residing with her parents at 114 Common Street, at the time

of the accident was at work in the drawing-in-room, in the fourth story. Her left arm and elbow were severely burned by the steam pipe, and her right shoulder injured. She is twenty-one years of age, is a girl of much intelligence, and speaks very clearly with regard to the calamity.

She says she has worked in the mill since it started, with the exception of last summer, when she was treated by Dr. Gay, at the Massachusetts General Hospital, for a tumor. On the day before the disaster she noticed an unusual rocking in her part of the mill, but as she had heard that some stones of the foundation wall had moved some time ago, she attributed the rocking to the thaw, and thought little of it. At the time of the accident, she was sitting at her frame, drawing in; she heard a crash, but thought it was caused by the falling of a beam of yarn; but presently, hearing a second crash, she knew the mill was falling; looking towards the walls she saw they were still erect; turning toward a thin partition, it appeared to be "coming down like waves of the sea;" she was struck by a rack of harnesses, and felled to the floor, with her arms and part of her head confined under it.

The portion of the floor, being in the south-west corner near the wall, did not fall through, but hung upon an inclined plane. For over an hour the poor girl lay in this critical condition — at first perfectly tranquil, being sure of relief, but afterwards in desperation, joining the loud chorus of "help! help!" Succor at length came, but in the excitement, against Rosa's remonstrance, her right arm was pulled violently from beneath the frame, wringing it in a very painful manner. She was finally released, and was soon in a comfortable condition.

Statement of Elbert S. Moses, an Overseer.

Elbert S. Moses had charge of one hundred looms in the weaving-room over the cotton-house. The first thing that he discovered, was a swaying of the cotton-house, which did not fall. This was instantly succeeded by the stopping of all the works. The gas-lights were extinguished, and a volume of steam and dust rushed into the room. The girls in this department all ran screaming for the windows overlooking the river, three stories high. Lights were discernible only above and at the southern side of the room. Mr. Moses, thinking that the boilers had exploded, told them the danger was all over. A man from without entered the room, but gave no alarm, and with one of the weavers ascended to the window in the roof. Mr. Moses followed, and then for the first time discovered the nature and extent of the disaster. The only safe deliverance for the girls in the weaving-room being through a window into the dry house of the Washington, he sprang for that, and by the aid of the "second hand," tore off the screen and broke the window. Thirty-one girls were safely passed through this aperture. As one by one they looked back into the shattered vortex below, they cried out in anguish for friends who were buried there. Some fainted, and had to be supported. Many of them had friends there, but all were rescued. Mr. Moses returned to the roof of the weaving-room, where he saw three little girls near the chimney, crouching beneath the cross-beams, and screaming for deliverance. A ladder was obtained, and the poor creatures rescued from their perilous position. Mr. Moses rescued a woman from beside a beam in the spinning-room, in a space five or six feet long by two feet high, and a foot and a half wide, over which, in ten minutes, the flames swept in ruthless fury.

Recovery of the Body of Lafayette F. Branch.

The body of Lafayette F. Branch was found on the Sunday after the accident, out-

side of the wall, on the south-east corner of the building. It was easily identified, there being few bruises upon the head. The fingers were somewhat mutilated, and one leg was broken. The body was found lying face upwards, in a straight and natural position. His watch was in his pocket, the crystal unbroken; it was stopped at thirteen minutes of five o'clock, which was supposed to be the exact time of the crash. By the position of the body, it is believed that he jumped from the window, but was overtaken by the falling walls before he could get away. Mr. Branch was a member of the city government of 1859, and he was universally respected in the community. He was foreman of the dressing-room in the fourth story, where he was at the time of the accident.

Recovery of the Body of Catharine Clark.

About three o'clock Monday afternoon, January 16, the workmen engaged in removing the ruined wall of the weaving shed, near the canal, discovered the body of Mrs. Catharine Clark, who was employed in the room attached to the main building. The body was lying on the ground, face upwards, and parallel with the wall. It was not burned, but horribly mutilated, and in an advanced state of decomposition. It was conveyed to the City Hall, where it was identified by means of a dress, by a fellow-boarder. The deceased was a widow, and boarded at No. 86 Congress Street. She leaves a family of five orphan children in Suncook, N. H., to which place intelligence of the discovery of her remains was immediately telegraphed. The body was enclosed in a coffin and deposited in the receiving tomb.

A Touching Narrative.

The following letter was published a few days after the calamity, which disclosed the sad circumstances attending the death of one who perished:—

“ ROCHESTER, Jan. 18th, 1860.

“ *To the Public* :—Maurice Palmer, an overseer in the Pemberton Mills, whose death was occasioned by the recent grievous calamity, was the sole hope of his aged parents. A younger sister of the deceased had been using her utmost exertions to relieve her father's house of a heavy mortgage, and thus give her parents a home in their declining years, but consumption caused her death less than three months since. And now their son, Maurice, their *last* surviving hope, is cruelly taken away from them, leaving his unfortunate parents, and his three promising children (the oldest but nine years old) in poverty. I write these lines to call the attention of the liberal and benevolent to the facts herein contained, and to request of the kind and generous wherever this may go, that this unfortunate family may be remembered in their sore affliction. Means should be freely contributed to save to them their home, which will soon pass into other hands, unless the generous-minded assist them in their distress. They are worthy of whatever may be contributed; the father is rising seventy years of age, and an excellent man, being highly respected by all who know him. Those forwarding contributions to Wm. Jackson, our postmaster, may rest assured that they will be placed at the disposal of the family. Wishing all to give according to the extent of their means, and thus assist a suffering and destitute family, whose only chance of support has gone in the person of their worthy and excellent son,

“ I remain very respectfully yours,

JOHN H. FULLER.

“ The above facts are strictly correct.

WM. JACKSON, Postmaster.

“ J. D. EVANS, Town-clerk.”

Miraculous Escapes.

One young girl was buried ten feet under rubbish, but her screams being heard, parties set to work to extricate her. After toiling long and hard, they succeeded in removing the complicated mass, when, to their astonishment, the girl jumped nimbly up, and ran skipping away, greatly pleased at her liberation, and not in the least hurt.

An entire family of five persons, all employed in the mill, was providentially saved, and the poor mother, gathering her children about her, amid the surrounding darkness, her heart bursting with gratitude for their deliverance, offered up a fervent prayer to Heaven.

Miss Selina Weeks, of Dover, N. H., worked in the spool-room, in the sixth story. She went down with the building, and when she recovered from the shock, she was standing upon the floor of the spool-room, her body half concealed amid the ruins. She escaped unhurt.

Damon Wyhom, an overseer in charge of the looms in the basement and first story, was buried beneath twelve feet of ruin. By almost superhuman exertion, and after repeatedly sinking back in despair, he succeeded in clearing a passage to where he could be reached by those outside, and was saved.

A boy at work in one of the upper rooms, hearing the crash, had the presence of mind to jump into a waste box, which, with its occupant, was buried several feet beneath the ruins. When the rescuers raised the pile of rubbish from the box, the young hero sprang from his narrow prison, and walked away as coolly as if nothing had happened.

Another boy, who had acquired the use of the "dudeen," on being extricated from beneath a mass of machinery, walked away, took a pipe from his pocket and went to smoking.

Three women were in the privy when the mill fell, and were all saved, as that portion of the building remained standing until the succeeding evening.

Three young women, members of a family of seven, named Luck, were all in the mill at the time of the fall, all of whom escaped without serious injury. One of them, Jane Luck, after being buried five hours beneath the ruins, was rescued without receiving so much as a scratch. Anna, one of the oldest sisters, was standing near her loom when the crash came. She instantly threw herself under the loom, and called to Elizabeth Fish and Phelia Barnes to follow her example. They did so, and were all three saved. The Luck sisters had one uncle killed and another fatally injured. All these girls were near the windows.

Miss Ann Lugden of Lowell, was at work in the fifth story, and was buried in the ruins; after lying senseless for an hour she made her escape with several others near her, and returned to Lowell to prevent her mother from suffering anxiety and suspense.

Mr. Thomas A. Watson, who worked in the fifth story, had three ribs broken, his lower jaw broken in three places, and several severe flesh wounds and bruises. Yet he was not aware of any injury or pain until after his resene. Watson's wife worked in the Pemberton Mill and had not been away from there a day for six months until that afternoon. Her husband intended to start for California on the following Monday, and she remained at home to do some washing and prepare for his outfit. By this cause she was saved from running the great personal risk which endangered the life of her husband.

Mr. Adams, second hand in the weaving-room on the first floor, was buried deeply in the ruins, and extricated himself with a saw and an axe which were handed to him through a crevice.

Touching Incidents.

A young girl was released just before the flames burst forth, and in answer to a question, stated that she was unhurt. It afterwards appeared that her right arm was badly broken near the wrist, but in the excitement of the moment, and the joy of deliverance from a dreadful death, she had not noticed the hurt.

A little boy, whose only friend on earth was his mother, and that mother employed in the mill, wandered about among the crowd, sobbing as if his little heart would break, and begging the bystanders to save his mother. The prayers of the little fellow were answered; his mother was saved, and clasping her son in her arms, his joy knew no bounds — one extreme succeeding another.

The fire had made considerable progress, and was approaching the spot where a man was surrounded by timbers, yet had room to move about. A stream of water was directed upon him, and every exertion made to save him, but in vain. He and three others, in nearly the same position, were left to perish.

A young man, the only son of his mother, and she a widow, who, through his exertions, had been brought from Ireland, only a week before the calamity, was among the killed.

Among the numerous cases reported to His Honor the Mayor, is that of a family of six children, who have lost both parents by the calamity.

At one point, when a rope had been fixed to a projecting timber, a call was made to the crowd to take hold and pull with a will, but for a few minutes, such was the danger of the attempt — for the beam in falling might engulf all near it — the call was unheeded. Men shuddered and drew back; they would risk much to aid those below, but life was sweet and the danger great. At this critical juncture a woman rushed from among the crowd and daring the spectators to follow, seized the rope and attempted to mount the pile of smouldering ruins, to clear away with her hands. The example was enough; not a word was said, but strong hands at once drew the female back, and then there was no lack of hands to the rope, the beam was drawn out, and at least two sufferers released from the opening thus made.

One poor girl, alive and fully conscious, was dragged from the east end of the fallen mass, with her left arm torn from the socket, and her body and legs awfully mangled. She was taken by her friends, but did not survive long. In one place the bodies of three girls were found locked in each other's arms, but quite dead. They could not be removed without mangling them, and being abandoned for a time, the flames broke out before another attempt was made.

A young and beautiful girl employed in one of the upper stories of the mill, when the crash came, was thrown prostrate upon the floor by a piece of shafting which fell across her neck, preventing her rising. The coupling which connected the shaft kept the latter from strangling her; and in her comparative ease, and confident of a speedy delivery, she calmly watched the efforts made by the rescuers to extricate her. She would have been saved had the fire been stayed but for a few minutes. But the flames swept over the spot, claiming and obtaining its victim.

Among the painful incidents of the dead-room, was that described by a gentleman who was assisting a poor Irish woman in a search for a relative — the only one of her kin who was not separated from her by an ocean. A blue scarf and a cross-pin were the means by which she hoped to recognize him. They stepped over some bodies, and inspected the countenances of all, without finding the one they were searching for. The gentleman, on raising the cloth which covered the face of one, was shocked to see that the under jaw was entirely gone, apparently broken and then driven into the neck by

the force of a heavy blow from some large piece of machinery, and still more to see on the neck the blue scarf, and the pin glistening upon it, which were to identify the lost one. The grief of the woman was great, but she seemed to have been prepared for the result of her search, and retired from the room to prepare for the funeral of her friend.

A little lad, named Henry Hale, had his legs and the lower part of his body palsied by means of a beam which fell across his bowels, but he was cheerful and lively in the midst of his sufferings.

THE SEARCH FOR THE DEAD.

The flames, which had capped the climax of the disaster, raged through that night, and on the morning of the eleventh the breaking of day disclosed the ruin they had left, and the smoke and half-smothered fire still rising from that funeral pyre. Towards daylight, most of the crowd who had been laboring unceasingly in battling with the devouring element, dispersed, some to seek for the lost, others to attend the wounded, and a few to seek that temporary rest which they so much needed. Some still lingered about the scene of devastation, and their number was soon augmented by people flocking from the City Hall and from the surrounding towns. Each arriving train brought crowds of visitors, who gathered to gaze on the disaster, till the bridge, the ice-bound canal, and the street which overlooked it, were thronged. They pressed as close to the ruin as the heat of the still-smoking pile would allow. The firemen, many of them, were still at work, and some of the spectators were manly enough to relieve them at the brakes. The water hissed as it fell upon the charred masses of timbers and the heated machinery. Gradually the ruins became cool enough to allow workmen to resume the search for dead bodies, and energetically they plied themselves to the task, not with the moderation of hirelings, but spurred on by intense anxiety and despair, tempered with the hope of finding at least the remains of those they were seeking. With but little success was the work continued through the day and succeeding night, for the masses of stone and metal retained an overpowering heat.

In the evening the Pemberton Company took charge of the ruins, but many of the common laborers had friends among the dead and wounded, while nearly all who took an interest in the search for the missing were worn out with fatigue. During the night the drizzling rain had changed to snow, and but few remained about the spot. At ten o'clock on Thursday forenoon the smoke was still curling up from fires in the caverns of the ruins to which the water and snow had not penetrated. Three streams from hydrants were playing upon them, and the water was gradually congealing upon and encrusting the mass of brick and machinery, which filled and rose above the cellars of the mills. At the same time the rapidly falling snow was weaving a winding sheet over the dead as it sifted through the crevices of the ruins. Two or three hundred people stood sadly gazing upon the smouldering fragments, and a few men and women wandered over the vast funeral pyre and gazed into the dreadful depths with the vain hope of discovering some intimation of life, or relic of the dead. But little labor was done at excavation during that day, but on Friday a hundred men were at work, and the overhauling and removal of the rubbish progressed rapidly. Derricks were raised over the parts of the ruins where the most weighty masses were, and long trenches in the complicated masses of machinery, filled with men at work with hands and tools, indicated the progress of the labors. From this time until near the close of the succeeding week bodies were almost hourly recovered and conveyed to the dead-room at the City Hall. Some were found in nearly a perfect state, and were easily recognized; others were horribly mutilated or disfigured, and could only be identified by fragments of clothing.

On one occasion, while two or three men were digging in the ruins, a man proposed to them to dig at a place where he saw a young woman buried. He said she was struck by the shafting, her legs doubled under her, so that she could not move, and that just before the fire he heard her cries. Her name was Kate Cooney, recently from Ireland, and without friends in Lawrence. The men dug as requested, and soon came to her body; it was horribly mutilated by the fire around the head and shoulders, but below that the flames had not extended, and her dress and apron were not scorched. Her arms were burned off to the elbows, and above them the bones had been broken in several places. Near her head was an ear-jewel. The body of John Hughes, a muscular man, who had escaped from the building but was overtaken and buried by the falling rubbish, was found in the Duck Mill yard. The face had been pressed out of shape by some heavy weight, but no other injuries were manifest.

On Saturday, thirteen bodies were exhumed; like all recovered after the fire, these were more or less disfigured. In some cases nothing remained of the forms so recently animate, but fragments of charred limbs and portions of the vitals, so effectual was the work of the devouring element.

The work, which had actively progressed all day, was postponed Saturday evening at dark. The workmen had progressed to that part of the ruins where it was supposed a large number of the bodies would be found; and the work was stayed by the fear that these bodies might be unnecessarily mutilated if the workmen should proceed to exhume them in the night. On Friday night the bonfires burned but dimly, and the work went on amid a solemn gloom, relieved only by a fitful glare. The progress of the labor was the subject of an intense and universal anxiety, but the cessation was caused only by a feeling of humanity. It was resumed Sunday morning by a force of a hundred and fifty men, commencing inside of the walls.

The last of the bodies recovered were almost entirely destroyed. By Friday, January 20, every part of the ruins had been examined, and it was believed that no bodies remained unrecovered, except such as had been completely burned.

The mayor was daily in receipt of intelligence from many of the surviving operatives, who, until the knowledge of their safety was gained, were supposed to have been buried in the ruins. Many were heard from at Methuen, Andover, and Lowell.

The crowds at the ruins continued immense for several days, and almost every person bore away some relic from the scene of the disaster. A gentleman from St. Louis procured a large bundle, taking not only burned fragments of clothing found upon the victims, spindles and yarn from the general mass of ruins, but even a part of a brick, and the mortar which came from its surface. Several gentlemen from New York were also laden with relics. Spindles which were found bright and polished were favorite relics; but any part which could be conveniently carried found a customer. The passion grew to such an extent that orders were given against allowing further acts of the kind, and only a favored few could enter the lines which surrounded the ruins.

After the ruins had been thoroughly examined for bodies, the workmen were directed to remove such portions of floors and rubbish as were considered dangerous. Then they were occupied in removing the bricks and machinery from the pile, and in taking from it the burned cloth and other property which could be saved, a long and difficult work. As soon as the expectation of finding bodies no longer prompted haste, the gangs of workmen who had been hired in other towns and cities were dismissed to give an opportunity for work to such as had been thrown out of employment by the accident.

RELIEF OF THE SUFFERERS.

Turning from the revolting pictures which other events and duties have indelibly impressed upon the memory, from the shocking realities of violent death and the agonizing grief of surviving kindred and friends, it is a relief to recite the evidences of unselfish sympathy, of pure and disinterested benevolence, which have arisen from every quarter. From sources widely separated in interest from the victims of the calamity, came generous donations of material comforts, evidences of the wide-spread sympathy which the catastrophe had awakened. Scarcely had the electricity flashed the news of the disaster over the country, when the answering tide of benevolence came rolling back, and on the day after the accident, before the citizens of Lawrence had had time to perfect their plans for aiding the sufferers, the following paragraph was read in the Boston evening papers:—

“A meeting of twenty gentlemen was held at the rooms of the Massachusetts Hospital Life Insurance Company at half-past one o’clock, in reference to rendering assistance to the sufferers by the recent catastrophe at Lawrence. Hon. David Sears presided. Mr. T. Jefferson Coolidge was chosen Secretary. It was decided, without discussion, that a subscription be opened, and that the sum obtained be paid over to the New England Society for the Promotion of Manufactures and Mechanic Arts for distribution. Those present put down their names for \$2,000, and the meeting dissolved, leaving the paper in the hands of Mr. A. A. Lawrence for further contributions.”

This came like a ray of encouragement on the dark scene of poverty, which had met the eyes of the benevolent.

The next day an announcement appeared that a subscription paper had been opened at 46 State Street, Boston, and of a meeting of the Committee of Relief, Amos A. Lawrence presiding, at which it was voted to despatch at once the sum of \$5,000, by a special messenger, to assist in relieving the suffering so prevalent in Lawrence. At this meeting committees were appointed to solicit aid.

These sums were the foundation for a large fund of contributions, which flowed in from all parts of New England, from New York, Philadelphia (where the movement was initiated by a contribution of \$500 from the Corn Exchange), and elsewhere.

A committee of the “New England Society for the Promotion of Manufactures and the Mechanic Arts,” had charge of most of the larger contributions in Boston and vicinity. The following touching appeal was received by the chairman of this committee from Mayor Saunders, on the Saturday after the disaster:—

“CITY OF LAWRENCE, Mayor’s Office, Jan. 13.

“MY DEAR SIR:—We as yet know but little of the heart-rending agony that is crushing our people. Instances are hourly brought to my notice, which make me long for a time to weep. I have steeled my nerves, yet they almost break.

“There are many cases which call for speedy aid and sympathy. Nine hundred people upon whom at least three thousand were dependent for support, are out of employment. Young children have lost their parents; brothers and sisters, dependent upon each other, are separated; aged and infirm parents, dependent upon their children, are now childless.

“One terrible case came under my personal observation. A little girl about fifteen years of age, who supported her younger orphan brothers and sisters, was buried in the ruins, but not injured. We had nearly extricated her; ten minutes more and she would

have been safe—but the flames came. You must imagine the rest. I can't write it. Oh! how fervently our prayers joined with hers to God.

"There are many very sad cases. I can't write—it unmans me.

"Yours truly,

"D. SAUNDERS, JR., Mayor."

Such appeals as this moved the hearts of all, and subscriptions were swelled till there seemed no longer any danger from poverty.

A board of trustees for the management of the Relief Fund was promptly organized, and consisted of the following gentlemen: Daniel Saunders, Jr., Charles S. Storow, Henry K. Oliver, John C. Hoadley, and William C. Chapin.

The city was immediately divided into districts, in one of which each physician paid frequent visits to all the wounded, and another division into wards was made with reference to the labors of a committee for the distribution of supplies to the needy.

The committee was constituted as follows: Ward 1, S. A. Furbush; Ward 2, J. Q. A. Batchelder; Ward 3, W. D. Joslyn; Ward 4, Henry Withington; Ward 5, Elbridge Weston; Ward 6, Daniel Saunders. The latter gentleman is the father of His Honor, Mayor Saunders. Mr. Pardon Armstrong was appointed clerk. These committees and physicians at first found much suffering and much destitution among a large class of the operatives, and particularly among those families some members of which had been injured or killed.

A gentleman among the most active in relieving the distresses of the injured and poor related that on one of his visits he found a small tenement occupied by two families, numbering about eight persons. There was but one stove in the tenement, and but one bed. Those of the two families who could not be accommodated on this, had been accustomed to sleep upon the floor. Out of those eight or nine persons, two were wounded, not dangerously, but still severely enough to require careful attention. The families had emigrated there within a few weeks from Nova Scotia, and had but few friends in the vicinity. Their poverty was found to correspond to their limited household equipments, and they were promptly relieved.

A young lady, one of those whose angel visits (not few, however, nor far between) added to the comforts and relieved the distresses of the unfortunate sufferers, found in one of her tours a poor widow with five children, none of them old enough for hard labor. One, a daughter, had been almost the sole dependence of the rest, and she was injured badly by the accident. The wounded girl lacked not only the luxuries, but the necessities, of a sick-room, and might have died but for the accidental discovery of her needy condition. The other children were hungry and half clothed. The wounded daughter was made comfortable and the case promptly reported, when a medical attendant and the almoners of the city missionary enterprise rendered the whole family happy.

In one of her visits among the wounded, another young lady found a poor widow, whose daughter, her main dependence, had been killed, and whose two little boys were sick. She had mourned her daughter's tragic end with that grief which refuses tears, till her mind had become unstrung, and when found she was almost a maniac, while her little boys, frightened at their mother's ravings, were suffering for food and clothing, and bewildered at the new phase of sorrow.

But the most trying scenes came under the notice of the physicians, as they made their accustomed rounds. The notes of a reporter who accompanied one of the physicians on a tour among the wounded, will serve as a specimen of the nature of their injuries:—

"Mary McAlear at No. 15 Short Street, jumped from one of the upper stories of the

mill. Received fracture of forearm, injury to right hip, and a general shock to her system. She rallied at first, but is now in a dying condition. Catharine Carrigan, at No. 18 Common Street, had thigh and arm fractured, and received injury on head. She is in a critical condition, but may recover. Mary Lawton, at the same place, sustained a severe injury to her head, and a fracture of one arm. Her case is considered critical. Celia Stevens, at No. 17 Orchard Street, has a concussion of spine, and severe injuries on head and on hand. She is in a critical condition, and will probably die. Mary Callahan, at No. 31 Common Street, sustained a severe contusion of lower limbs, one leg crushed below the knee, rendering amputation necessary. Ellen Mahoney, boards near the Washington House, had leg broken and thigh crushed, together with a severe laceration of the thigh. Augusta Sampson, boarding at No. 3 Pemberton Corporation, sustained a severe injury of the spine, and cannot survive. Ira D. Locke, of Deering, N. H., boards at No. 3 Washington Street, was dangerously injured internally, and is in a critical condition. Mary Kelley, in Valley Street, and George Kodolf, in Mechanic Street, had each a thigh fractured. Joanna Kearney, at No. 239 Oak Street, had an arm fractured and one leg badly lacerated. She will probably recover. Catharine O'Brien, No. 62 Chestnut Street, fracture of arm, contusion of head, and laceration of lower limbs. She is a great sufferer. Ellen McKay, No. 257 Elm Street, whose shoulder was fractured and spine injured, is doing well; and Mrs. Kelley, at the same place, who sustained injury to head and spine, is also in a comfortable condition. Thomas H. Watson, at No. 26 Bay State Corporation, lies in an extremely critical condition. His jaw and several ribs were fractured, and his chest crushed, rendering his recovery doubtful. Ann Manning, at No. 84 Common Street, received fracture of jaw and contusion of face, but is doing well. Mary Lavemay, at same place, had one of her feet crushed, but is in a comfortable condition. Henry Peckham, No. 1 Common Street, had one thigh fractured, but is doing well. Robert Hayes, No. 30 Chestnut Street, had an arm fractured and sustained severe contusions in various parts of his body. He is likely to recover. Margaret Ryan will probably recover from a fracture of the clavicle. Michael Wren, No. 77 Chestnut Street, had several ribs and the clavicle fractured, and sustained severe contusions of the head, together with internal injuries, which render his case a severe and critical one. Catharine McKay, Oak Street, severe fracture of one thigh and a serious contusion of the other limb, below the knee. A critical case. Thomas Conner, on the Pemberton Corporation, sustained a fracture of the pelvis, and his recovery is doubtful. Miss Watson, No. 9 Pemberton Corporation, received serious contusion of one arm and a rupture of the muscle. The physician hopes to save the limb. William Childs sustained a compound fracture of the forearm, but is in a comfortable condition. Miss Maria Hall, No. 77 Orchard Street, is in a pitiful condition from a severe injury to the spine. This is one of the most serious cases. Henry Hall Chestnut Street, received injuries in the bowels which render his recovery extremely doubtful. Mary Callahan lies at No. 31 Common Street, in a feeble condition, from a frightful laceration of the leg, extending from the foot to above the knee. Amputation is necessary, and will be performed if she is capable of surviving the operation. Kate Harrahee, No. 17 Commerce Street, has her arms and one thigh fractured. She is sixteen years old, and is attended by her brother, from Brighton, and a sister who worked by her side in the mill, but escaped uninjured. Mary Ann Hickey, No. 142 Common Street, has a fractured collar-bone, a severe contusion of the chest and elbow, hand crushed, serious injury at top of spinal column, and also suffers from a lung difficulty. This case is considered doubtful. Samuel Martin, No. 73 Chestnut Street, had his eye crushed out so that it hung down on his nose; the bone of the socket was broken. The eye was replaced, but he will lose it, without doubt. His left arm is

badly bruised, and he also suffers from two severe scalp wounds. Henry Kocher, No. 107 Summer Street, who was injured in the head, remained unconscious for five or six days, but yesterday his senses were returning. He will recover. Owen Horn had his foot badly burned by a steam pipe. Bridget Patten had her scalp removed from one side and laid over; her head is also badly injured. Hannah Finney suffers from a fracture of the femur, and has a mutilated hand and arm. Mary Crosby, who had a sister killed, had a severe wound on the head, with one ear nearly cut off; this has been stitched. She now suffers greatly from prostration. The case of James Davis, No. 115 Oak Street, is a severe one, and his recovery is extremely doubtful. He had both jaws fractured, one shoulder injured, and received a severe contusion of the chest."

Some of these were first found lying on miserable beds, in poor apartments, badly ventilated, and with none of the comforts about them which should relieve the tedium of the sick-room. But the benevolent people of Lawrence, and the efficient committee who visited the destitute, searched out each individual case of suffering from poverty, and gave prompt relief. There were many streets in the outskirts of the city, which contained scarcely a house but had its victim of the calamity. All that medical skill could do was done to alleviate the sufferings of the wounded.

Among the sufferers mentioned above was Mary Callahan, and her case was rendered the more lamentable from the obstinate refusal of her friends to submit to the only process, in the opinion of the physicians, which could save her life. They decided, after consultation, that her leg should be amputated. The girl was disposed to submit to the advice of her medical attendant, but the most urgent appeals of the physician and the priest to the mother, failed to induce her to comply with their request. Her only reason for refusing was, the superstitious one that her daughter's condition in heaven would not be so happy if she were maimed. The mayor used every effort to induce her friends to have her sent to the hospital at Boston, but they persistently refused, and there seemed no hope that the poor girl's life could be saved. Both mother and daughter had worked in the middle of the card-room, and it seemed sad to devote as a sacrifice to dark superstition a life that had been spared in the perils of the falling building.

During the week after the disaster, the want of accommodations for some of the wounded, suggested to several benevolent gentlemen of Boston the establishment of a hospital, and the result was the appropriation of the house at No. 10 Pemberton Corporation to that purpose. The corporation gave the use of the building, the city government of Lawrence furnished it in a comfortable manner, and Mr. J. M. Barnard of Boston provided for it a corps of nurses, assuming the general superintendence himself. A corps of physicians from the Massachusetts Medical Hospital volunteered their services to relieve the Lawrence physicians giving their personal attention to patients sent there. The project was started in the true spirit of charity, and was at once placed under the direction of the Relief Committee of Lawrence; those physicians and nurses who came from Boston only desiring to assist the overworked and suffering people of the town. To this place were removed eight of the most destitute of the wounded—all who could be induced to leave their homes. The benevolent projectors of the enterprise found a formidable and unlooked-for obstacle to the establishment of their plans, in the selfishness which was manifested by the friends of a few of the wounded. They had found their sick relatives productive of a rich revenue of family supplies, contributed by benevolent visitors, and they were not willing to have them removed to the hospital, since their absence would deprive them of their means of living without work.

A room at the City Hall was occupied by Mr. George P. Wilson, the City Missionary.

It was made a depot for all the medicines, bandages, and articles of food and clothing which were sent in for the sufferers, and a rendezvous for those engaged in distributing them, and otherwise employed under his direction. The services of several assistants were required in the room, which was at times thronged by applicants for aid. The contributions of articles required to relieve those suffering from poverty or wounds, were quite generous, and such necessary articles as were not contributed were supplied from the funds raised. The missionary himself was untiring in his labors. From morning till night he passed from house to house, personally inspecting the condition of the needy, and dispensing comfort to all. At the distribution-room he was assisted by two young ladies and a young man, whose continual attention was required. All of the contributions and the purchases brought were there arranged for distribution. All applicants, in the absence of the missionary, were referred to the ward committees, and no articles were delivered except upon their order. Hundreds have been aided by the missionary and his assistants, and much suffering has been prevented, and much trouble alleviated by this means.

The mayor gave his careful personal supervision to such cases as came under his observation, and with the general Relief Committee, co-operated most successfully with the almoners of the missionary department.

Mayor Saunders, for days after the accident, was constantly receiving letters, of which the following is a specimen :—

“NEW YORK, Jan. 13.

“To Hon. Daniel Saunders, Jr., Mayor of Lawrence :

“Having seen, in this morning's edition of the *Herald* that a girl named Isabella Martin has been wounded in the late lamentable occurrence at Lawrence, and having a sister of that name working somewhere in Massachusetts, I am apprehensive it might be her. I will feel forever thankful if you will ascertain, and let me know, by inquiring from her brother whether she is my sister or not. You can easily do so by asking her if she is from Mullingar, Westmeath County, Ireland.

“Your obedient servant,

EUGENE MARTYN.

“P.S.—I will feel thankful if you will let me know the extent of her injuries, and if they are fatal.

E. M.”

It was a heavy, and very frequently a sorrowful, duty to answer all these letters. Applications for aid were constantly received from those who were wounded, and such as had funeral expenses to pay for their friends who were killed. These letters, after proper investigation, if found to be genuine subjects for relief, were answered as soon as practicable, and material aid forwarded.

The clergymen of Lawrence deserve much praise. They were omnipresent from the time of the accident. Their labors were incessant, and they proved themselves indefatigable. Though sermons for the Sunday following, and appropriate to the calamity, were called for and furnished, and numerous funerals were attended, they still found time to render material aid, working upon the ruins, and at the brakes of the engines, and breathing words of consolation and encouragement at the bedside of the sufferers. Their labor was without money and without price, and their aid was found invaluable.

Among those who are deserving of especial mention here, as having most successfully improved the opportunity afforded them for displaying their humanity, was Mr. Samuel Morey, who first volunteered to act as keeper in the dead-room. He filled his painful office to its termination, with great ability, and then devoted himself to the wounded at the hospital. His associate, Mr. Daniel L. Plumer, also deserves notice. On the night of the accident he walked to Lawrence from North Andover, and did efficient service

through that terrible night. He offered his services at the dead-room as long as they might be needed, and would receive no pay. As he is a man in humble circumstances, his self-sacrificing exertions won for him the golden opinions of all. His acts will weigh heavier than the liberal contributions of the favored sons of fortune.

Some of the earlier and larger contributions to the Relief Fund have already been given. The following letters and incidents of a peculiar nature will be read with interest.

“NEW HAVEN, CONN., Jan., 14, 1860.

“*Hon. D. Saunders, Jr., Mayor of Lawrence, Mass :*

“DEAR SIR:—Enclosed you will please find a check on the “Suffolk Bank,” of Boston, for \$310.54, which we are requested by the young women and others in our employ to forward to you, to be applied to the relief of the sufferers by the late accident in your city, in such manner as will be productive of the greatest amount of good. They also desire us, through you, to convey to the bereaved friends of the deceased, and to the still-suffering victims of this terrible calamity, their deep and heart-felt sympathy with them.

“Permit us also to join in these sentiments of sorrow and sympathy, and to express the hope that the lessons taught to all by the circumstances of this accident may be productive of great future good, at least in some degree commensurate with the magnitude of the evil.

“In imitation of the example set us above, we have the pleasure of enclosing an additional check, as our mite towards the same object.

“Very respectfully yours,

WINCHESTER & DAVIES.”

The “additional check” was for \$100.

“MAYOR SAUNDERS, — *Kind Sir:*—Enclosed please find a draft for \$13, a sum which the members of my school (Springfield English and Classical Institute), some fifty-six in number, choose to offer as their mite to the sufferers of your city, in preference to taking a sleigh-ride, which they have contemplated.

“Respectfully,

LAURA W. STEBBINS.”

January 20, 1860.

“*Hon. Daniel Saunders, Mayor of Lawrence :*

“SIR:—Enclosed is ten cents, in postage stamps, the contribution of two little girls, who feel for the sufferers in your recent calamity.

Respectfully,

“*Jan. 17th.*

“C. L. C.”

A lady sent three sheets, with the following note:—

“These three old sheets, for bandages, were manufactured in India, and cost seventy-five cents a yard, years ago. They were bought before sham factories were built in this country. Although they are worn, they are soft. Like the widow’s mite, they may be acceptable.”

Among other articles received, were one hundred and twenty-five linen sheets, with a supply of lint, from the owners of the steamer Menemon Sanford.

The Italians worshipping at St. John’s (Moon Street) Catholic Church, near North Square, Boston, who earn their support by *street music*, on the Sunday succeeding the disaster contributed the sum of twenty-five dollars in aid of the sufferers.

A day or two before the accident, arrangements had been made to have collections

taken up in all the churches of Lawrence, in aid of the poor. These were accordingly taken up on the Sabbath succeeding the catastrophe. The Episcopal Church raised about one thousand dollars, and others contributed liberally.

One of the most useful of the donations was that from Chelsea, collected under the auspices of a benevolent and accomplished lady, who, actuated by a Christian sympathy for the unfortunate of her sex, sufferers by the great calamity, and acting under the adage, "The better the day, the better the deed," went forth among her acquaintances on Sunday morning, and solicited contributions of clothing for the destitute. Her appeals were, with one exception, promptly answered with generous donations. The import of her mission once known, others followed her example; and in the afternoon, the charitably disposed in all parts of the city were informed of the movement. Clergymen announced from their pulpits the place where contributions would be received; and by ten o'clock at night, the heart of the lady philanthropist was gladdened by the sight of hundreds of parcels of bedding, under garments, sheets, and other useful articles. The parlor and dining-room were piled with acceptable packages. Several gentlemen volunteered their services to pack the goods, and a teamster was found who conveyed the cases and barrels containing them to the railroad depot.

In nearly all the churches of Lawrence the Ladies' Sewing Circles for a week after the accident were actively engaged in plying their needles for the benefit of the sufferers. In some, where no such organization existed, temporary ones were formed for the purpose. At the Lawrence Street Congregational Church (Rev. C. E. Fisher's), some fifteen or twenty ladies met for several days, in the vestry, and manufactured in that time over *one thousand* yards of unbleached cloth into sheets, shirts, and every article which the fabric was suitable to be made up into, for the relief of the destitute. They deserve much praise for their co-operation in the relief of the suffering.

Among the contributions was one of \$81 from the operatives of No. 5, Amoskeag Mills, Manchester. The letter containing the sum was written by one of the operatives, and was one of the most impressive received. It breathed a spirit of condolence and sympathy commendable to the writer and contributors and most welcome to the suffering.

The Moro Lodge of Sons of Malta of Lawrence, held a meeting and raised a collection of \$105 for the sufferers, which was subsequently swelled to \$150 and more.

On Tuesday, Jan. 24th, the following address was published by the Relief Committee:—

"CITY OF LAWRENCE, Jan. 23, 1860. }
"Office of the Committee of Relief. }

"*To the Public* :—The undersigned, Mayor of Lawrence and Chairman of the Committee of Relief and the several members thereof, having in charge the distribution of funds contributed for the aid of the Pemberton Mill sufferers, in behalf not only of those who have been directly the recipients of the charity called out by the recent calamity but of every citizen of Lawrence, tender to a generous public, gratitude and thanks, the fulness of which overflows every heart.

"No calamity in the history of the country so startled the community nor carried so intense sorrow and desolation into so many homes; and no misfortune has ever elicited so intense sympathy. Our cry was no sooner heard than charity bearing upon its pinions comfort and consolation, hovered at our doors. From every point came hope, aid, and tender-hearted kindness, cheering and encouraging us in our labors, and lightening the burden oppressing us. Substantial and timely contributions of money and clothing were hurried forward from all quarters. The old and the young, little children and aged men and women, associations of various names, the church and the theatre, acquaintances

and strangers, the Christian and the Jew, those near us and those remote, all vied with each other in acts of generous charity, and in deeds of love and of mercy. The widow's mite and the rich man's full purse were alike extended to us.

"When all have done so much, it might seem invidious to particularize, yet we cannot forbear to bring into more prominent notice the spirit that prompted the "New England Society for the Promotion of Manufactures," to render so effectual and so ample assistance. This association was the first, though none were far behind, in bringing forward material aid, and has already subscribed nearly twenty thousand dollars for the relief of the operatives who were so suddenly stricken down at the scene of their labors. Nor can we omit to mention in terms of high praise, the self-sacrificing spirit which on the terrible night of the 10th inst., brought to our assistance so many and so brave friends from every city and town within a score of miles—physicians, firemen, mechanics, laborers, yea, men of every station in life—men with strong muscle, and women with tender hearts and willing hands.

"So generous have been the contributions in money and clothing from every quarter, we are most happy in believing that what has been already sent, with what is now pledged and already subscribed, or now in the hands of persons who have kindly solicited subscriptions, will be sufficient for the wants of those really needy, and those to be provided for in continuance. If not, the liberality of our own citizens will not permit any family or individual to want the aid and comfort which their necessities may require.

"By no means would we by any undue prominence of our own suffering and needs, great as has been our calamity, divert from other worthy objects of charity, for such there are in every community, the outpourings of that philanthropy which has been so effectually awakened in our behalf, and has been so thoroughly manifested towards us.

"DANIEL SAUNDERS, Jr.,

"Mayor and Chairman

"CHARLES S. STORROW,
"HENRY K. OLIVER,
"WILLIAM C. CHAPIN,
"JOHN C. HOADLEY, } Committee."

Daniel Saunders, Jr., the chairman of this committee and the mayor of Lawrence, deserves the gratitude and respect of all concerned. His labors were incessant from the time of the accident until the dead were buried, the wounded cared for, and a liberal charity dispensed. He heard every one who applied for aid, and performed all the duties of his office kindly yet discreetly. As long as the great calamity is remembered the efficient service of Mayor Saunders will be a credit to the city and an honor added to his name.

The following is a list of the money contributions received by Mayor Saunders, up to Wednesday, January 24th:—

LIST OF CONTRIBUTIONS.

New England Society, by L. Edmonds,	\$2000 00	Unknown,	1 00
" " " by J. D. W. Joy,	3000 00	Winchester & Davies, New Haven,	100 00
Suffolk Club, Boston,	2000 00	Employees of Winchester & Davies, New Haven,	310 54
Whittemore Belcher & Co.,	6 00	Davis & Furber, North Andover,	100 00
Naumkeag Encampment, I. O. of O. F.,	25 00	F. W. Choate, Beverly, Mass.,	20 00
Lathrop Luddington & Co. and Employees,	300 00	I. M. Ide, Jr., Taunton,	10 00
Joseph Jewett, N. Y.,	2 00	E. J. Woolsey, Astoria, Long Island, N. Y.,	250 00
Edward Harris, Woonsocket,	100 00	S. W. Winchester, N. Y.,	30 00
W. S. M. Camp, Middleton, Conn.,	10 00	Occupants of Washington Market, N. Y.,	303 00
Wm. Gray, Boston,	1000 00	Church of the Unity, Boston,	200 00
Shagze & Tappan, Boston,	20 00	Evangelical Church, Framingham,	57 00
F. Hall & Co., Commercial Advertiser, N. Y.,	10 00	G. G. Evans, Philadelphia,	1000 00
Boston Corn Exchange and its Members,	600 00	Rev. Mr. Haskins, St. Johns Church, Boston,	100 00
Doremus & Nixon and others, N. Y.,	778 00	George Lawton, Waltham, Mass.,	100 00
Elbert Clemens, Danville, N. J.,	3 00	Moses Tenney, Boston,	25 00

John P. Peabody, Salem, Mass.,	10 00	E. B. S., Troy, N. Y.,	3 00
Rev. M. P. Dougherty, Cambridge, Charity, Boston,	450 00	Wm. H. Taylor, New Bedford,	100 00
Chickering & Sons, Boston,	5 00	Naumkeag Steam Cotton Mill, Salem,	1000 00
C. H. Adams & Co., Boston,	200 00	A. D., U. S. Pensioner, 1812, N. Y.,	5 00
Henry Benda & Co., N. Y.,	100 00	Mass. Division Sons of Temperance, Boston,	100 00
Wm. G. Billings, Boston,	10 00	Citizens of Groveland,	50 00
New England Roofing and Manfg. Co., Boston,	50 00	B. Saunders, Nashua,	50 00
Dobson & Jordan, Insurance Company,	50 00	Jackson Manfg. Co. Operatives, Nashua,	186 57
Proprietors and Employees of Andover Publishing and Printing House,	250 00	Citizens of Amesbury and Salisbury, Mill Village,	
Wm. Curtis Noyes, N. Y.,	30 00	J. G. Whitten,	207 25
F. G. Littlefield and friends, Boston,	50 00	Operatives of Amoskeag Mill, No. 3, Manchester,	175 00
John L. Stephenson, Boston,	25 00	Manchester Print Works,	53 15
Lyman Mills Employees, Holyoke,	10 00	Powwow River Lodge, No. 90. I. O. of O. F., Amesbury,	25 00
Peter Smith, Andover,	225 00	Boston Encampment Knights Templar,	100 00
Forest River Lead Company, Salem,	30 50	G. F. Archabald, Boston,	5 00
Mrs. Theodore Chase,	200 00	A Bookkeeper,	10 00
John W. Harding, Long Meadow,	50 00	Edward A. Raymond, Boston,	20 00
Whitten, Hopkins, & Co., Boston,	1 00	P. B. Turner, Quincy,	3 00
Theodore Bliss, Philadelphia,	25 00	A Laborer, Holyoke,	5 00
F. Gordon, Plymouth, Mass.,	50 00	Anonymous,	1 00
E. E. S., East Hartford,	10 00	Scholars of Springfield English and Classical Institute,	13 00
Northfield, Mass.,	5 00	A Jew,	10 00
C. E. Aldrich & Co., Boston,	50 00	Occupants of Faneuil Hall Market, (additional),	30 00
J. A. Frink, Cincinnati,	1 00	Manchester Cornet Band, Manchester, N. H.,	340 50
Orphans and Family of De Vaux College, Suspension Bridge, N. Y.,	10 00	Hibernia Universal Benevolent Society, Dover,	50 00
Sands & Byus, Andover,	10 00	Eureka Lodge, F. A. A. M., New Bedford,	25 00
B. B. Converse, Boston,	5 00	Warren Street Synagogue, B. Nelson President,	50 00
Employees of Gas Metre Factory of Messrs. Cade, Hopper, & Gratz, Philadelphia,	115 00	Operatives of Phoenix Mill, Shirley,	30 00
Operatives of Marland Manfg. Co., Andover,	100 00	C. W. E., Boston,	5 00
Harnden & Co. Express contributed by various individuals,	45 50	Angs Warthenhager, N. Y.,	1 00
Operatives of New Market Manufacturing Co.,	263 90	Ashtenfield, Boston,	5 00
Second Universalist Society, Manchester,	5 00	Operatives New England Glass Factory, E. Cambridge,	200 20
Mrs. Benj. Saunders, Nashua,	5 00	Mrs. King, Cambridge,	5 00
Capt. Percival, U. S. Navy,	35 00	Express Companies of Boston,	800 00
Waltham Social Club,	100 00	Lowell Irish Benevolent Society,	100 00
Rhode Island Engine Co., Pawtucket,	100 00	Ladies of Cambridge, forwarded by Emory Washburn,	58 00
Occupants of Faneuil Hall Market, Boston,	500 00	Francis Draper, East Cambridge,	50 00
S. Cohen & Co., Boston,	15 00	Edward G. Parker and Lady,	20 00
Wm. Sutton, Salem,	37 00	P. R. Annidown, Boston,	5 00
Cypress Camp, I. O. S. M., Newburyport,	50 00	Chandler & Co., Boston,	75 00
Employees Eagle Mills, West Chelmsford,	81 00	Members of N. Y. Stock Exchange, N. Y.,	435 00
Italians of Boston,	30 00	Operatives of Sutton's Mills and Reed Shop,	100 00
J. B. McMahon, Boston,	100 00	Cornell, Hall & Co., N. Y.,	100 00
Beals, Green, & Co., Boston Post,	50 00	Citizens of Providence by Javy Knight, (Mayor),	1000 00
Operatives of Lake Mills, Lake Village,	77 00	Geo. C. Ballou & Son, Woonsocket, R. I.,	100 00
Members Boston Corn Exchange, additional,	100 00	Anonymous, Boston,	3 00
H. F. Morgan, N. Y.,	25 00	Rev. O'Conovan, his private subscription,	50 00
C. S. Faulkner, Keene, N. H.,	25 00	Operatives of No. 1 and 2 Mills and Dychouse, Amoskeag New Mills,	129 25
Messrs. English & Moran, Proprietors of the National Theatre, Boston,	222 50	Male Operatives, Stark Mills, Manchester,	135 00
Rev. Moses Patten,	2 00	E. G. Friend, Gloucester,	5 00
Peter Lawson, Lowell,	10 00	W. Wyman, Lowell,	5 00
W. F. Freeman, Boston,	75 00	Charles Newcomb, Quincy,	15 00
Sympathizer with misery,	10 00	Citizens of Swampscott,	40 00
Doremus & Nixon, N. Y., additional,	165 00	Employees of Amoskeag New Mills, cloth room,	12 25
Solomon Piper, Boston,	20 00	First Parish of Lexington,	67 00
Tremont Lodge, No. 15, I. O. of O. F.,	30 00	Globe Steam Mills, Newburyport,	210 00
Citizens of Providence, forwarded by Jabez Knight,	1000 00	S & J. Myers, Boston,	20 00
Townsend, Mallard, & Cowing,	25 00	Dispatch Hose Co., No. 2, Boston,	20 00
James P. Tanner, Pittsburgh,	25 00	United Presbyterian Society, Oak Street, Lawrence,	11 24
Persons connected with Neponset Cotton Factory, Canton,	82 00	Walter S. Hunter, Washington, D. C., (proceeds of a lecture),	53 50
Andrew Carney, Boston,	200 00	American Boat Company of Lowell,	50 00
Pittsburgh Club, Pittsburgh,	300 00	Committee of Arrangements for a complimentary dinner to Baylie Peyton, Philadelphia,	212 72
Mutual Relief Lodge, No. 83, I. O. of O. F., Haverhill,	25 00	A widow's mite,	5 00
Joseph Leavitt, Salem,	10 00	Adams' Express Company, N. Y., (additional),	1000 00
Samuel Day, Salem,	5 00	Mount Hope Lodge, F. A. A. M., Fall River,	50 00
Employees in Mule Spinning-Room, Mill No. 2, Manchester Corporation, Manchester, N. H.,	40 00	Operatives of Brookdale Mills, South Danvers,	25 00
A Lady, Concord, N. H.,	5 00	Barnicoat Engine Co. No. 11 of Boston,	40 00
Henry W. Dutton & Son, Transcript Office, Boston,	100 00	Commercial Advertiser, N. Y.,	50 00
Mrs. Francis Rupp, Roxbury,	100 00	Howard Lodge, I. O. of O. F., Charlestown,	25 00
Corn Exchange Association, Philadelphia,	600 00	Minnehaha Club, Amesbury and Salisbury village,	108 00
Citizens of Quincy, by J. Alba Davis,	100 50	Kinsley's & Co.'s Express, Philadelphia,	450 00
Q. N., Boston,	20 00	Employees of Norway Iron Works, Boston,	81 00
C. F., Boston,	1 00	Universalist Church, Middleton, Conn.,	30 00
A. R. Nye, Boston,	5 00	D. N., Boston,	5 00
G. R., Boston,	3 00	A Workingtonian, Boston,	2 00

H. A. W., Fitchburg,	5 00	Rev. Dr. Albro's Church, Cambridge,	100 85
Baptist Church, Old Cambridge,	51 68	Coughlan, Langley & Co., N. Y.,	25 00
C. W. S., Boston,	3 00	Crew of schooner Flying Dart, lying at Swamp-	
Officers and Employees of Western Railroad,	675 65	scott,	10 00
Citizens of Brookline,	150 00	William D. C. Ellis, North Andover,	13 25
Theodore Leonard, Greenfield, Mass.,	9 00	Dr. Lewis Williams, Pomfret, Conn.,	12 00
S. A. F., Boston,	3 00	M. L. E., Manchester, N. H.,	3 00
Wm. H. Hinchey, Lynchburg, Va.,	5 00	Mrs. Ann G. Morrill, Concord,	15 00
First Parish, Portland, Me.,	204 22	Printer's Union, Boston,	100 00
Employees of Pepperell Mill, Biddeford,	255 00		

OBSERVANCE OF THE EVENT.

The great calamity was the theme of the citizens as they met in the street, and of the pulpit and the forum. Wherever the voice of the orator was heard, its horrors were rehearsed and its lessons enforced. In Lawrence, on the succeeding Sabbath, every preacher but one delivered a discourse especially adapted to the occasion. These sermons, which were listened to by crowded congregations, ascribed various causes while they appointed similar lessons for the calamity. It is worthy of remark that in five of the discourses the same passage of Scripture served as a text.

The Voice of the Pulpit.

In the following pages we give a kaleidoscopic view of the theology of Lawrence in connection with the event. It is made up of carefully prepared abstracts of the sermons preached that day :—

REV. HENRY F. LANE, AT THE FIRST BAPTIST CHURCH.

Text:—"Of those eighteen, upon whom the tower in Siloam fell, and slew them, think ye that they were sinners above all men that dwelt in Jerusalem? I tell you, Nay; but except ye repent, ye shall all likewise perish."—Luke 13: 4, 5.

Mr. Lane began by saying that if Jesus in his own person were the preacher of to-day, he would read his text as follows: "Think ye that those upon whom the walls of the Pemberton fell and slew them, think ye that they were sinners above all men that dwelt in Lawrence? I tell you Nay; but except ye repent ye shall all likewise perish." When the tower of Siloam fell, we may well suppose that inquiries were raised essentially the same as those that have been on every tongue and in every heart in our city for the past few days. Some of these inquiries have reference to the relations of the present life and the responsibilities and sympathies of men toward their fellows. Others have reference to the relations of the future life of the soul, of the accountability of man to his Maker, and the disposition of God toward men. The former class are already under the consideration of those who will seek, as far as men are able, the solution of the secondary causes that have resulted in such deplorable misery. The latter class of inquirers belong to this place and this day, and answers must be sought for in the principles of the religion, for the support of which this house has been dedicated, in connection with the Divine attribute. By the light of the text we may interpret the afflicting providence as being permitted by the will of God to serve as a warning for the living. It is in reality a type of what all will deserve and what all will meet. Many of those who have not been involved in the calamity are worse sinners than some who have fallen. The calamity is therefore no proof that those who have suffered were sinners above others. They were indeed sinners, and no injustice has been done those who have fallen by the permissive will of a righteous God. The penitent and impenitent were involved in the same temporal death, and all the living, sooner or later, will experience essentially the same. The penitent have been saved from the perdition of soul. They, as some indeed sang, have "gone home to glory," but the impenitent have per-

ished, soul and body, in accordance with the Divine decree, "The soul that sinneth, it shall surely die." Look, then, on this dread calamity as a type, not only of what all deserve, but what all will meet. All of us must experience the death of body for all have sinned, and all the impenitent will suffer the perdition of the soul. "Repent, for except ye repent, ye shall all likewise perish."

REV. DANL. TENNEY, AT THE CENTRAL CONGREGATIONAL CHURCH.

Text:—"Ye shall know that I have not done without cause all that I have done, saith the Lord God."—Ezekiel, 14: 23.

As a thunderbolt descending from the midst of an unclouded sky, said he, has the great event of the last week fallen upon our bewildered, awe-stricken spirits. Was its only design (for it came not without a design, the shaft was not aimless,)—was its only design to startle and shock and paralyze? And shall its sequel be that, in the reaction, the pulse shall beat all the more feverishly, and our race after earthly bubbles be only the more eager and insane? Can it be so? Yes, it can be, and so strange are our natures, it will be, if we seek not light from heaven to fall on this awful judgment and reveal to us its aim. One thing we do know, for God has told us so, that he does nothing as a mere exercise of arbitrary power. He does not sport with infinite resources, nor scatter thunderbolts at random. He is wise as he is powerful and gracious. He does not afflict willingly.

One design of God, in sending terrible judgments upon his creatures, is doubtless to impress them with his *own irresistible power and their impotence*, and this is a gracious design. When the omnipotent One lays his finger upon man, he feels—he is *obliged to feel*—that he has no power to contend with the Almighty. His plans are all laid for worldly gain—his machinery is all in motion—hundreds are doing his bidding, and pouring wealth into his coffers. In an instant, in the twinkling of an eye, by the permission of the Being whose will he may not have thought of consulting, every wheel stops, every hand is stilled, and his treasures are buried in one undistinguishable mass. Then the amazed and disappointed man looks on with palsied tongue, but from the depth of his spirit comes a voice, "God is powerful—man is vanity." Ten thousand men had gathered round yonder scene of ruin. With strong hands and manly hearts they rush to rescue the sufferers, whose cries for help rouse them to almost superhuman exertions. "We *will* save you!" they confidentially promise, and press to their work. But what can ten thousand men do to resist the decree of the Almighty? The flames are kindled, and the throng fall back and stand and gaze as powerless as an army of insects. "God is mighty and man is weak," was the thought that thrilled and awed the multitude as they thus stood.

Secondly, God's judgments do not usually come in a miraculous and independent way, but in fulfilment of an invisible law. Their design is to teach us that the laws of God cannot be broken with impunity. God governs by law. If a man thrusts his hand into the flame he will be burned. If the joints of a ship are made insecure the storm will overwhelm it, be the cargo ever so valuable or the lives ever so precious. If the foundations of a factory are not laid deep and broad and its walls are not prepared for their designed pressure, they will fall.

Thirdly, God's judgments teach us that all hopes of happiness built on an earthly base, are *vain*. "Vanity of vanities—all is vanity!" the disappointed man cries out, as his plans are thwarted and his hopes dashed. But God's design is a gracious one in this. It is not to harden the heart to all joy, and paralyze all his hopes, but it is to lead men to build on an immortal base, and then his joys are as secure as the throne of the Eternal. Is it cruel in God to make us see this? In nothing is he so kind. If

this severe blow, that has almost stunned this community, may only lead them to lay up a treasure in heaven, to make the only God their friend and portion, then will it prove our chiefest blessing.

In concluding this discourse our thoughts again run back over the events of the week, and as they do so we tremble. What may be before us we dare not prophesy, since changes so fearful could come so suddenly. What was there on the afternoon of Tuesday last to forebode this ill that was just at hand? The population of this busy city were all at work. The wheels of these immense manufactories were all in motion—the air was filled with the whirl of machinery and the hum of voices. Yonder sepulchre was the theatre of industry, of gayety, of profanity, of projects for the increase of gain, of high hopes. Those nine hundred operatives saw no handwriting on the wall—they felt no trembling beneath. In the hundreds of dwellings from which those men and women went forth at noon, with no farewells of unusual tenderness, all was peace. The children had begun to prepare for their fathers' return—the ovens were filled with bread for the weary laborers. Many a mother and wife was hailing the decline of the sun, that brought nearer the return of the absent ones, when suddenly, as if an earthquake had shaken us, a crash is heard—those high walls creak and tumble and are laid low! It was the work of an instant. Who that gazed on that scene of horror—who that heard those agonizing shrieks for help—who that pressed on with those gathering thousands, can ever cease to shudder at the recollection of that day?

Those mangled forms—those bleeding faces—those glazed eyes—that eager clutch of the half-stiffened hand as it seized on yours, still haunt your dreams, and make you stop and hold your breath in the midst of your waking cares: those crackling flames that mingled with the cries of despair—that we all felt, as we were driven back from the work of rescue—that strange song of Christian triumph, that some of us heard, which the huge pile of ruins could not smother, "I'm going home, I'm going home"—that kneeling form, which some of us saw, with clasped hands, which death had stiffened, in the posture of prayer—all—all of those mysterious scenes still burn on the leaves of memory, and it will take many a day and many a year to extinguish them.

REV. C. E. FISHER, AT THE LAWRENCE STREET CONGREGATIONAL CHURCH.

Mr. Fisher postponed this discourse on the Sabbath till the following Tuesday, appointed by the mayor as a fast, at which time it was delivered.

Text:—"For when thy judgments are in the earth, the inhabitants of the world will learn righteousness."—Isaiah 26: 9.

He alluded to the recent event as a judgment of God. In view of it, we should strive to learn what tribute we can render unto him, and what lessons he teaches us, and how we may best improve them in our future lives. He then gave a graphic description of the accident, the burning ruins, the sufferings, the exciting scenes, the joyful meetings, the search for the lost, the dreadful suspense, the wailing of the wounded, and the universal sorrow which it had caused. He also gave some statistics of the number of dead, wounded, and missing, showing the gratifying fact that of the whole number in the mill, over one-half escaped uninjured. By what means were they so wonderfully preserved? By the protecting and delivering hand of God, without whose notice not a sparrow falls to the ground. Most men believe that this answer is true, while other men deny that the calamity comes within the range of God's providential government of the world. But if God providentially succored those who were saved, how does it appear that this destructive calamity overtook others without his consent or permission? This leads to the inquiry, does God's providential government extend to the calamities of the world, and does it extend to this calamity? The speaker maintained that it did, most assur-

edly. It would be useless and even impossible to separate God and his providential government from the occurrences of life. He then proceeded to prove the truth of the last proposition, and narrated several facts as illustrations. One was substantially as follows: In 1844, on the 18th of October, he was travelling near Lake Erie, when a storm arose, which in severity and fury was almost unprecedented. The water was raised to a flood at Buffalo. Two hours before he arrived, thirty-two steamers had left to cross the lake. On one of them, among the passengers, was a sceptic, who, a few hours before, had boasted that there was no God, no Providential government, and that all the ideas of the Christian religion were false. The boat had not proceeded twenty miles, when the terrible storm overtook it, and threatened all on board with its fury. Among the first to fall on his knees and implore protection and mercy from that God whose very existence he had denied, was this sceptic. Even the heathen would believe in the providence of God, and manifest it by the wearing of charms, in which they trust and rely as a means of procuring divine favor and preserving them from harm. The Jews, brought up under God's special guidance, believed in his providence, as is proved by the inquiries of those who stood by the tomb of Lazarus, and asked, "Could not this man, who opened the eyes of the blind, have caused that even this man should not have died?" God's providential government extends to every person and event, and if men take their place in the divine plan, all will work for their good. A great calamity is no exception; it is a part of God's plan, which involves alike great events and those of less importance. He then proceeded to consider the lessons we are to learn from calamities, and especially from this calamity. The following were spoken of as the most important: 1. That God carries out his providential plan according to his own good pleasure. 2. Men are dependent, and, if they would be blessed of God, they must conform to his divine plan, as set forth by his laws and in the conditions of the Gospel. 3. The uncertainty of life. 4. The value of the soul. 5. The guilt of impenitence. 6. The gratitude we owe to God for his delivering mercy. 7. The duty we owe to the suffering and afflicted. He closed by showing that God designs to teach us the importance of living, not for this world, but for the future, and of the importance of living in conformity to his commandments, so as to be prepared for whatever his providence may develop.

REV. E. M. TAPPAN, AT THE FREEWILL BAPTIST CHURCH.

Text:—"Those eighteen, upon whom the tower in Siloam fell, and slew them, think ye that they were sinners above all men that dwelt in Jerusalem? I tell you, Nay; but except ye repent, ye shall all likewise perish."—Luke 13: 4, 5.

After describing the accident in a thrilling manner, he proceeded to speak of the lessons to be drawn from the event. 1. The first lesson to be learned was, To beware of the inordinate love of money, for it will result, sooner or later, in our injury. From the testimony before the coroner, now holding an inquest, it appears that the Pemberton Mill was not substantially built; the walls were too thin—much thinner and weaker than those of other mills; the pillars were not strong enough. From these causes, undoubtedly, it fell. It could not have been from settling previously, for the doors and machinery would have given immediate notice of that. True, some testify that it was well constructed; but are they practical men? They state just as they believe. But men who have been engaged in erecting buildings for more than twenty years, who worked on this, declare to us most solemnly that they did not consider it safe; and we must believe them. A civil engineer, or an architect, to be reliable, should be one whose own hands have handled brick and mortar. A plan may look well on paper, which is entirely impracticable. But we blame no one, for we know not whom to

blame. The falling of the mill is all the evidence we want that it was not substantially built. That cannot be gainsaid by theories or opinions of men. Why did it fall? We are told by some that this disaster is a judgment of God upon this city for its wickedness. Well, if I should leap from the bridge into the river, and lose my life, that might just as well be called a judgment of God, because he did not suspend the law of gravitation in my behalf. This mill was built in violation of physical laws, and it fell just as such buildings always must fall. But why was it thus built? Because it would *cost more* to build it substantially. The *inordinate love of money* is the cause of this sad disaster. Those persons did not lose their lives because they were worse than others; that mill did not fall because its owners were worse men than the owners of the other mills in our city; our city does not suffer this calamity because it is worse than all other cities; but because, to save expense, the mill was not properly built. And if there is not a change, other and similar accidents will still occur. There is too much haste to be rich; hardly any one can be trusted. Almost every paper brings intelligence of defaulting clerks and officials, and men absconding with the property of others. An honest man can hardly accumulate now a fortune in a fair manner. He must overreach, or discover some way whereby he can get the advantage of others. Now, unless there is a change in this respect, we may expect scenes like those just witnessed. If a mill is to be built, it must be done a little cheaper than others, so as to have the advantage. Our State should appoint Building Commissioners to look to these public buildings. I would not add to the feeling; it is deep enough. I hear that some are leaving other mills in our city, through fear of their falling. The other mills are no more likely to fall because this one has fallen.

2. The second lesson I would suggest we should learn is, To set the affections supremely on things spiritual, that we may be prepared to meet our God whenever he may call for us to leave this present state of existence. I do not mean that we are not to love our friends, that we are not to love this beautiful world, that we are not to love this present life and enjoy its good things, or that we are not to engage in business here with earnestness and zeal; but that while we love these, there should be affection in the heart above them all for God, for *His* law, for purity of heart, for heaven. These temporal things pass away. Last Tuesday morning the owners of the Pemberton Mill thought they had property there worth more than half a million of dollars. When the sun went down on that day, where was it? If they had loved this supremely, how wretched they must be to-day. So we see, however successful we may be in accumulating, in a single hour may be lost the reward of years of anxiety and toil, and perhaps the price of purity, of honesty, of health, of the soul. Why, then, love these things supremely? They will leave us, or we shall them. I cannot say one word against the tender relation of husband and wife, of parents and children, of brother and sister. We should love these fervently, but love God supremely, for from him there will then be no separation.

3. Another lesson we should learn from this appalling calamity is, *Trust in God*. I would not have man lose sight of his own responsibility, or have him forget that God works by means in accordance with laws, or that he must do his duty, and not rely presumptuously on God. But recognizing this, and conscious that he is doing his part faithfully, I would have him then trust confidently in his Father above, and feel sure that all things shall work together for his best good, whether we live or die. We need such a trust as this. Those who were at work in the Pemberton, did all they could to extricate themselves from the ruins, and I believe God helped them. I do not see how otherwise it could be possible for so many to escape.

4. Once more: By this sad calamity we should be taught the *importance of being diligent in our labors as Christians*. Prepared or unprepared, those killed in the Pemberton Mill are now in the spirit world, where they are beyond

our efforts to benefit them. Perhaps some of us know of some of them over whom we might have exerted an influence for good which we did not. It is now too late. Perhaps, too, there were among them some who neglected their Christian duties, saying, to-morrow shall be as this day and more abundant. But to them to-morrow did not bring the privileges of that day; they were ushered into eternity. Now they did not sin above all others in this respect — perhaps not above us; and if we are not more faithful laborers in our Father's vineyard, our day, too, will soon be over, and life's work here all unperformed. He closed by urging reliance upon God, and a spirit of thankfulness rather than repining.

REV. GEORGE PACKARD, D.D., AT GRACE (EPISCOPAL) CHURCH.

Text: — “Or those eighteen upon whom the tower in Siloam fell, think ye that they were sinners above all men that dwelt in Jerusalem? I tell you Nay.” — Luke 13: 4, 5.

The preacher first remarked upon the appalling event which had caused so great sadness and sorrow in the community, and had awakened the deepest commiseration and sympathy in Christian hearts all over our land. What a special meaning had been given to that sentence in the Burial Service — “In the midst of life we are in death.” What emphasis of meaning to such passages from God's word as “Boast not thyself of to-morrow, for thou knowest not what a day may bring forth;” “There is but a step between me and death.” Always true, but how much of truth they are now seen to contain. In the recent disaster, which has filled so many hearts with sorrow, and from which so many escaped as by a miracle, we cannot say why one was taken and another left, why this family are mourning in bitterness of sorrow on account of the loss of one or more of their number, and other families were all preserved, and upon that memorable evening were permitted to unite their voices or hearts in thanksgiving to God for his gracious interposition for their rescue. Our duty is to note, not to explain, the events which are occurring on the earth; not to assign the reasons which actuated the Divine Mind in their accomplishment. The wisest and the best of men have been confounded by the providence of God. The prophets acknowledged that the most signal dealings of Providence were involved in inscrutable mystery. The prophet Jeremiah says, “Righteous art thou, O Lord, yet let me talk with thee of thy judgments; wherefore do the wicked prosper?” The wherefores have perplexed the closest students of the operations of the divine government; and yet the wherefores men rashly, presumptuously assign, interpreting God's dealings as if they were as easily comprehended as the commonest transactions among men. The preacher specially remarked upon that proneness in the human heart, to make providential events determine the character of men. Job's friends acting upon the false principle, that this life is one of retribution, charged inquiry upon him, because of the calamities that overwhelmed him. The Saviour condemned this same erroneous judgment among his contemporaries. There is a vast difference, said the preacher, between holding the doctrine of a Providence that is equally involved in the fall of a sparrow and a nation, and presumptuously daring to assign the special reasons which influenced the actings of God in the particular events of his providence. It is one thing to acknowledge the hand of God in such events as clearly manifest his special agency, and quite another to pronounce upon the character and purposes of such events. Well is it for us, said he, that this is not a world of retribution. Should God be strict to mark our iniquities as a community or as individuals, and should mercies be withheld or judgments be inflicted according to our true deservings, we might well tremble at the changed condition which a righteous retribution would award. Our prayer is, and should be, “O Father, for the glory of thy name, turn from us all those

evils we most justly deserve." The appalling catastrophe of the past week has moved the sympathies and called forth the earnest prayers of many Christian hearts all over our land. The prayer has been offered in many assemblies of God's people, which have been convened in our larger cities and towns during the past week of special prayer, that God would make this awful event the means of blessing to very many in this community. In this prayer, surely, we should unite, not with our lips merely, but with our hearts. In our united service, and as we bow before the God of all grace and consolation, we can, we should pray for the many almost miraculously preserved, that their hearts may be duly impressed with God's merciful goodness, and that they may devote the residue of their days to an humble, holy, and obedient walking before him; we can, we should pray for the many who are passing days of distress and nights of anguish, that they may be prepared for God's will, whether it be life or death; we can, we should pray for the many who mourn the loss of some one or more dear to them, that, deprived of earthly friends and supports, they may go to Him, who, when truly sought, is found, and will prove an unfailing friend, an unyielding support; we can, we should pray for the many among us who need to be aroused from their moral stupidity and indifference, that God would so bless to them this startling event, that they may be awakened to a sense of their danger and their duty, and be led to give their attention to those things which belong to their everlasting peace. He closed by urging benevolence as an accompaniment to prayers, and a preparation for death.

REV. H. H. HARTWELL, AT THE GARDEN STREET METHODIST CHURCH.

Text:—"Who among you will give ear to this? who will hearken, and hear for the time to come? Who gave Jacob for a spoil, and Israel to the robbers? did not the LORD, he against whom we have sinned? for they would not walk in his ways, neither were they obedient unto his law. Therefore he hath poured upon him the fury of his anger, and the strength of battle: and it hath set him on fire round about, yet he knew not; and it burned him, yet he laid it not to heart.—Isaiah 42: 23, 25.

In his exordium, Mr. Hartwell explained the connection of his text with a history of God's ancient people Israel, their transgression and consequent misery. They gave themselves up to the destructive vices of a false religion, and refused obedience to the commands of the living God. God called, entreated, and wept over them by his servants, but they would not hear. He then resorted to more severe means and visited them with awful judgments. But in all his judgments God is not vindictive or revengeful, but only sympathetic. He pities, while he strikes, but he must be obeyed. But the afflictive developments of Divine Providence are designed for our good. They show us our dependence on God; they warn us against sin; they lead us to repentance, and to the love and worship of the true God.

But the text is not only historically descriptive of the ancient Israelites, but is a prophetic declaration of the state of the people under the Gospel dispensation, referring to Israel as an example. In the application of this subject, in view of the recent calamity, the speaker made some fitting remarks on each of the following points: 1. We are a people highly favored of heaven. 2. We are a people deeply guilty. 3. God has borne long with us. 4. He has warned us often of our sinfulness. 5. The awful stroke has come. In his remarks on the fourth proposition, he alluded to the great fire of last August, which resulted in the death of three men; to the sudden death of several young men recently; and last of all to the event of the past week. This catastrophe was no surprise to him; and in this connection he referred to a sermon preached by him on the first Sabbath of the year, in which he expressed an impression that the present was to be an eventful year, and one fraught with great and unforeseen occurrences to the

people here ; and also to some remarks made by Mr. Seaver, a young man who is numbered among the injured, last Sabbath, in which he referred to the great fire, and said he believed it was to be followed by other calamities. In speaking on the last point he said God was seen in this event. We may talk about natural causes, but the hand of God was clearly seen. He, however, in this part of his discourse, as previously, disclaimed any belief that this was in punishment of any specific wickedness.

He next alluded to the effect which this would produce — it would either harden or soften us. Who will give ear ? Who will reform ? Who will lay this to heart ? Think of the dead and wounded ! Repent, seek God, and prepare for any event. “ This year shalt thou die.”

He then spoke of our duty and of the gratitude which is due from those who escaped, and thankfulness for the safety of friends. And our sympathy was due to the mourners, the wounded, and the strangers who were seeking the lost ; and our praise to those who had tendered generous assistance. He here spoke in complimentary terms of the firemen, of those in Boston and elsewhere who had furnished kindly aid, of the people of Lawrence generally, and of the City Government. He also expressed his abhorrence of the actions of some, instancing the selling of liquor, profanity, stealing, etc., which had prevailed to some extent. He narrated some interesting but mournful facts in regard to the deaths of several members of the church and congregation. Among these were William Metcalf, Augusta A. Ashworth, and John C. Dearborn. After alluding to the wounded and graphically describing some of the scenes of the catastrophe, he closed by saying, May God revive the work of religion more in our midst, and may we all finally meet, where we shall be safe amid the crush of worlds and wreck of matter, is the honest and earnest prayer of your humble servant and pastor.

REV. J. H. MCARTY AT THE FIRST M. E. CHURCH.

Text:—“ Of those eighteen upon whom the tower in Siloam fell, and slew them, think ye that they were sinners above all men, that dwelt in Jerusalem ? I tell you, Nay ; but except ye repent, ye shall all likewise perish.—Luke 13 : 4, 5.”

In commencing, the speaker said that the recent calamity, with the arduous labors and loss of rest which it had occasioned, had wellnigh disqualified him for the duties of the day. He would gladly lie down and rest, did not duty call him to his post. For my part, said he, when God was sounding a trumpet from heaven, to awaken into spiritual life the thousands around us who are at ease in their sins — sins which are paralyzing and corroding the soul, I dare not think of being silent, for if ever the truth was preached from the desk, or in the pulpits of this city, certainly it ought to be now.

The Saviour does not discountenance that view which regards many calamities, such as is referred to by himself, as judicial inflictions of Divine Providence for flagrant violations of God's law. The Scriptures in many places endorse such a sentiment—the reply of our Lord in this very place does, as is seen in the words, “ Unless ye repent, ye shall all likewise perish.” He aims only at correcting the *abuse* of such a sentiment, in attributing every such accident to a special and direct visitation of the Almighty in punishment of unparalleled crime—an opinion exceedingly uncharitable, which was prevalent among the Jewish people respecting such calamities. He furthermore endorses the idea that God would visit sin with signal punishment, irrespective of who is the greatest sinner. But how loud the call to contrition before God, by all, in view of the fearful providence that seems to hang over this city. What a fearful display of the omnipotence of Jehovah ! How all human skill and power are set aside !

The casualty of the 10th inst. is without a parallel in the annals of our country. It is to be hoped such a scene may never be witnessed again anywhere. That terrible

cry, rung through our streets by a thousand voices, "The Pemberton Mills have fallen in, and seven hundred persons are killed!" Then the universal panic that seized the whole population; the wide-spread consternation that paralyzed many, and excited to frenzy others; the multitudes that rushed with bleeding hearts, mourning and sobbing aloud, that reminded one of Egypt when her first born were slain, rushing to the scene of ruin only to be tortured with the shrieks of the wounded and the sight of the dead. "Rachels weeping for their children, and would not be comforted because they were not." Children calling in vain for parents buried in worse than ocean grave. Sisters mourning over lost brothers, and brothers over perished sisters. Those curling flames bursting from caverns of fire within, and lighting up the very heavens, while scores of dead ones were doomed to feed the insatiable element, and add to those fires that sent a thrill of unutterable anguish to every heart. To call your minds back to such scenes gives your spirits pain, but the recollection is vivid though painful. Heaven intends we should feel; we forget too easy. Mystery hangs over this affair. We call it an inscrutable Providence. Such I will at least call it until we have the verdict of the jury, and even then would not dare to call it by any other name. There is a wide difference, however, between human carelessness and love of money, and Divine Providence. If a man hangs himself, or drinks himself to death, it ought not to be charged upon the Almighty. Humanity is here responsible, though God may overrule for good the errors of man, and cause his wrath to praise him. Upon this phase of the subject it becomes us not now to speak at length. Accidents occur that no human sagacity could foresee. This may or may not now be the case. We shall get the truth, doubtless, in reference to this matter. The moral of the question is uppermost in the speaker's heart. We place ourselves in danger in a thousand ways, and ever and anon the destroying angel touches the elements around us, and under the withered bough, or falling building, the raging flame, or walking pestilence, or the furious thunderbolt, men are smitten unto death, and ushered, prepared or unprepared, into an eternity that knows no end. But even if men are to blame for owning and using unsafe property, thus putting in jeopardy hundreds of lives, which for the honor of the race I hope is not the case, still we have a warning in the event which a wise and holy God permits—which can be, and it is to be hoped will be, blessed to the good of the whole land. The question in every heart should be, "What would my condition now be, had it been my lot to have met death in the ruins of the Pemberton Mills?" We should return to him our grateful acknowledgments that so many escaped, bruised and mangled though they are. We should gather our families—who have them—around us, and offer to him the homage of our hearts for saving them from such a terrible doom. We should implore him with deep penitence of heart to visit us no more with such a fearful judgment. The whole city should mourn. We should open our hands and freely dispense whatever we have to relieve the sufferings of the unfortunate; and we should not cease to bear them in our prayers to a throne of sovereign mercy. We should receive this as a stroke of the Almighty to make us feel that God is above and ruleth in the heavens. As Christians, we should be more faithful, and as sinners, we should repent of our sins. If we heed not such a dispensation, then what shall we heed? If these judgments bring us not to our thoughts and feelings, God will either send others, severer, or say: "Ephraim is joined to his idols; let him alone!" if so, fearful must be our doom.

The speaker closed with a direct appeal to his congregation in regard to their religious interests, urging repentance and faith; basing his plea on their intelligence, their consciousness of what is right and what is wrong, what they ought not to do and what they ought to do to insure their own salvation.

REV. WM. L. JENKINS, AT THE UNITARIAN CHURCH.

Text: — Bless the Lord, O my soul: and all that is within me, bless his holy name. — Psalms 103 : 1.

In commencing, the speaker said that after the awful crisis just passed through, he felt at a loss of words, and needed time and rest to collect his troubled thoughts. But he would speak heart to heart as to brothers, and turn their minds from the dark veil over the providence of God, to the cause for thanksgiving and gratitude — the sun above the cloud.

God has indeed been near us, said he, and pressed to our hearts as perhaps never before, disclosing how thin is the veil between the two worlds. Still we can look up more than ever before in gratitude and praise. The imagination hardly conceives of, and history hardly records, such a miraculous preservation of life. Who, that sees that blackened desolation now, could think one had escaped? The Pemberton Mills fell through wholly natural causes. The great physical laws of God were violated in the erection of that building. God does not choose now to work miracles or suspend the laws of gravitation, to save us from our weakness or ignorance. 'Tis the blackest blasphemy, and argues a hard theology, that dries up the warm juices of the heart, and debases the imperial reason to drivelling superstition, to say that this calamity is God's visitation upon us, or his judgment, or his wrath — that its cause was not physical but moral — that the Irish are so drunken and licentious as to draw down God's wrath — or that the Sabbath was so violated here, or the community so wicked. If so, God would have killed a higher and richer class than those poor, ignorant Irish. The building fell from some error in construction, and the whole world demands that the cause be searched out, that every mill be thoroughly tested from foundation to cap-stone, and another such catastrophe made impossible. Better sink the capital of the whole country than run the risk of such a scene! I blame no man, nor body of men, but the laws of God were broken by man. The salvation of so many hundreds was through the infinite love of God. With this thought we have come here for thanksgiving. When we felt the utter despair that made the warm life blood die away, it was at the thought that all those seven hundred or eight hundred people were lost in the ruins. Now, see God's mercy. As we go over the list of those of this society, every one of whom we supposed buried up, very many, but not all, are safe. When the very heavens seemed falling, the dead weight of despair was lifted. Are we grateful enough? He alluded to the almost miraculous escape of the agent of the mills, the fervent friend of the society, and of the leader of their choir, and for the salvation of their lives he thanked the goodness of God. Then there was another dear friend, beloved and respected by all, saved to his wife and child; then, one of the trustees of the church, father and son, devoted with their families to the interest of the church; then five others, overseers, recovered from most perilous positions. I can conceive, said he, of no more miraculous escape; 'tis the smile of God on those blackened ruins. Of the awful experience of these eleven, — the first sensation when it came upon them like a tornado or earthquake, or the sound of Heaven's artillery, as if the end of the world had come, moving the instinct to escape by whatever way possible; the mad rush from the impending ruin; the suspense like the stillness of eternity, when seconds seemed hours; the strained faculties, by a reaction stunned and paralyzed for a moment; the awakening to consciousness, and the awful joy, that they stood on solid ground and breathed God's free air; the next thought, of home and the beloved, to send them word of their safety; the involuntary, perhaps unconscious, prayer to God; and then, mingled with the ecstatic joy, the up-look to the crushing building; the stifled wailings within and without; the thought of so many they knew buried up alive; the

wild delirium, so much misery and so much joy, when they were brought face to face with God's providence,—of these individual experiences, each so different and each so solemn, they cannot tell. But they should remember that God's hand has consecrated them, that they have been called by an almost superhuman voice to bless him in life as well as in words. He would not speak of the multitude of the dead, or the fearful scenes of that night. The reality had not yet but must gradually break upon us. He saw God's mercy in the strength he gave to the unharmed to labor, and to look on scenes no words can describe. After speaking of the great love of God manifested towards the living, the preacher alluded to two persons who had been taken from this church by the calamity. But it was not for us to sit down in sackcloth and ashes, make long prayers, and keep severe fasts to deprecate God's wrath; continued disasters should enforce the command to "love one another." We should be more united, more loving, more helping, more assiduous to do good, more devoted to the *living*, more like the good Samaritan. To that higher mansion, said he, in concluding, we trust these souls, and look up from the earthly house of this tabernacle to that building of God, "a house not made with hands, eternal in the heavens."

REV. M. J. STEERE, AT THE UNIVERSALIST CHURCH.

Text:—"In the day of adversity consider."—Ecl. 7: 14.

Lawrence, said he, was now in a way to be known through the wide world. She had, during the past week, experienced such a day of tribulation as never of the kind had been, and perhaps never would be. We were apt to think present extremes greatest, but sure he was that, in all his reading, he had never fallen upon any thing taking place during the regular routine of peaceful, industrious life,—so fearful, appalling, as that which now hung the city in mourning. Indeed, said he, so far from being liable to extravagance in our estimate of our city's sorrow, we believe that none of us have really awakened to a full apprehension of it. And it is well that our sensibilities should be partially stunned by a blow so terrible, lest we be unnerved for the high and laborious duties which it devolves upon us. The speaker would not harrow the feelings of his audience. They needed anodynes rather than stimulants. Many of them had been laboriously active by day, wakefully nervous by night. Sleep had fled their pillows. Some of them had hovered over the wounded and the dying, like ministering angels, others would have gladly done so had God given them the *nerve*. Their duties were not yet all done. But they were needing rest—rest in God. He hoped they would find it to-day, for lo! "He giveth his beloved sleep." Days of adversity were referred to, and prominently that of the previous autumn, when Lawrence was enveloped in a cloud of cindery smoke, and threatened with being made a mass of devouring flames. That was a day of adversity, when her citizens were running to and fro distracted, firemen were fainting with over-exertion, and several persons were killed by the falling of ruins, and when fire was, by the ministering wind, cast into God's goodly sanctuary. Dark, indeed, was that day of adversity: but it was bright as the light, compared with the darkness that then overspread the city. What though the sufferers were generally foreigners? What though they were not highly connected? What though in this respect, with a few exceptions, this disaster differed, *toto calo*, from the Norwalk tragedy, or the burning of the Lexington? Should we therefore be the less moved? Nay, but the more. Therefore were the claims upon sympathy stronger. So the speaker felt as he saw two ladies bending over a poor German in the hall, who could not speak our language, like the twain cherubim over the mercy seat. We cannot feel, said he, as do they whose dear ones have been borne away from them, and perhaps buried, unidentified as yet,—now, perhaps, still lying deep in the chaotic grave in which they were

buried alive. Nor can we feel as do they who lie with broken limbs and rent muscles, waiting, perhaps, to die; or as they who watch over them with a hope that will not yield. But we can feel sufficiently to move us to do for the suffering all that is demanded by our holy religion. Another visit of the speaker to the ruins entombing the charred bodies of some of the brethren, and over which the storm was weaving a winding-sheet of snow, had doubly convinced him that our sensibilities were for the time mercifully stunned, lest we be crushed beneath our sorrow; but still indifference were as criminal as it were impossible; Judas' hanging himself was scarcely more criminal than Peter's indifferently warming himself, while his Lord was being abused in Pilate's hall.

In this day of adversity, said the speaker, we might consider the marvel that so many should have been saved. Did an angel lead them out? We might also consider the glory of Christianity, as we understand it, as affording abundant ground for cheerful submission to even such a day of darkness. He would say nothing of other theologies. Let them get comfort from them who can. He would cling to the universal fatherhood. It was not for us to see the victims of fall and fire and suffocation dropping from the misery of that awful scene into misery endless. He did not see in the death of those who perished in the sight of their friends,—who went to eternity as in a fiery furnace, a consignment of their souls to endless pain. Oh, no; he saw their sufferings ended with their dying, as that they could suffer in the future only whatever would be needful to discipline them to holiness; as he saw the poor souls crying and burning and dying, he felt that dying was to them relief. We should consider a duty growing out of such adversity. For our benevolent activity it had opened a wide door. Here the speaker appealed to the charity of his audience. "O brethren!" said he, "if we have escaped the terrible scene—if our immediate friends are not involved in it—if our family circle is still complete, how, I pray you, can we better express our gratitude to God than by ministering to the wants of the poor sufferers. Oh, what is money, counted by the lurid light of flames burning up our shrieking brethren!" In closing, he said, "If I address any who are hoarding, and are becoming callous as the pile increases, let them look at the scene of suffering to-day, till the admonition of the mangled and charred dead, and the sorrowful living, pierces to the centre of their hearts, and gives vent to the pent-up milk of their kindness. And let us all be willing to divide our *pittance* with the victims of destitution carved out by the hand of terror. But enough! In this day of adversity consider. So much impromptu. No more."

In the afternoon he spoke on the same subject from the text "And Aaron held his peace."

REV. MR. DINSMOOR, AT THE REFORMED PRESBYTERIAN CHURCH.

At this church, Rev. Mr. Dinsmoor, the pastor, preached a discourse, intended principally to commemorate the recent event. He selected for his text a portion of the passage of Scripture adopted by several other clergymen as the foundation of their discourses. "And except ye repent, ye shall all likewise perish."—Luke 13: 5.

He described the fallen condition of man, and spoke of the recent event as a judgment of God, being brought upon the world in consequence of the sin which characterized it. He maintained the necessity of falling upon Christ for salvation. We are all, he said, deserving of death, and, but for God's mercy, we should receive it. Our only way of safety was by fleeing to God and repenting, and, unless we do that, we "shall all likewise perish."

REV. JAMES O'DONNELL AT THE CHURCH OF ST. MARY (CATHOLIC).

This church was dressed in mourning, and was filled to overflowing. After announcing the number of the killed, and drawing consolation from the fact that nearly all had received the last rites of the church, Father O'Donnell said, —

“It is remarkable, that of the nine hundred persons at work in that mill, where not one could hope to escape, so small a proportion were killed or injured. Oh, how I should wish at this time to remind those who escaped of the vows and promises they made under those burning ruins! But it is of little consequence when we are called upon to die, or where, if we are prepared; but it is of great importance to be fit to die at any time; and I cannot give you better advice, than to be always ready. We cannot know the hour when God will summon us. He says to all, Watch and pray, for ye know not the hour when ye are to be summoned. To the man who kneels down every morning and implores the protection of God, death is always welcome, because God calls him, and it will be impossible to find him unprepared. Oh, I wish those persons who never go to church on Sundays would take warning from this, and improve in the future. In proportion to the weight of this sorrow, God Almighty has poured consolation into the hearts of the bereaved, to make them surrender their friends with more resignation. Four thousand persons die every hour of the day and night from one end of the year to the other. We should always implore the mercy of God, for many a man who goes out in the enjoyment of life and health in the morning, at night is dead. I need not remind you of the many instances in your own lives where the protection of the Holy Virgin has been manifest. See how a little intimation from her induces her Son to change water into wine. If you wish for the intercession of the saints—if you desire the protection of the Blessed Virgin, you must try and obtain the friendship of her Son by obeying all his commands. I will recommend to all persons to return to their work, and not allow the recent event to prey on their minds. You are all under the protection of God. No matter where you are, you cannot die before the time appointed, unless you are so depraved as to put an end to your own lives. And, as you are under the protection of God, and are always safe till he wills that you should die, I advise you to discourage by your example all attention to those groundless rumors and alarms, which can only excite fear among the weak and simple. Let all return to their work, and, my word for it, not a person will die a single instant sooner than God himself has designed. It is a doctrine of our faith. And when the time of one's death does come, not all the doctors of the earth can save him. Let me again request all to set their houses in order, and live prepared to die, and then death can have no terrors for them. Now there is every reason to praise God that he has so tempered this blow with mercy; and we have great cause to thank those around us for their generous attentions to our sick, which have been gratefully noticed by those who have been continual witnesses of their charity. I recommend them to your prayers, that God will reward them according to their generosity. As an instance of it, I might allude to the time, two years since, when the mills were stopped, and hundreds, with no work to do, were at the mercy of poverty. During that winter not a single person in Lawrence was sent to the poorhouse, but all were maintained by the generosity of those around them. And now the American people here have done all in their power to relieve and comfort us; they have wept, they have lamented, and they have succored and assisted us. It is Almighty God who raises up those friends for you. He has provided them to extend the hand of sympathy and attention to those in affliction, at a time like that described by the prophet, when Rachel bewaileth her children, and will not be comforted, for she hath them not. Pray for them, I entreat

you. Let your prayers ascend for all; they will avail just as much for those who are absent as for those who are before you, for those who are away upon the stormy sea as well as for those who are at your side. Pray that the Almighty God will grant them heaven, and that the gates may stand open to them, and that they may receive the joys of Paradise."

REV. MR. TAAFFE, AT THE CHURCH OF THE IMMACULATE CONCEPTION (CATHOLIC).

This church was also hung in mourning, and crowded with people. After the customary exercises, Father Taaffe spoke as follows:—

"Dearly beloved, who of us could have believed last Sabbath that, ere another Sunday's sun had risen, such a change had been wrought among us,—such a calamity had befallen our people. Feelings are such at this time that I cannot speak in detail, neither do I wish to harrow up your sympathies. We meet this morning to render our prayers in behalf of those whose souls have been called from earth so suddenly. At the same time we will contribute freely to aid those suffering, and our prayers shall be given to strengthen the widows and orphans in their overwhelming grief. I trust that many of those dear ones who have so suddenly been taken from us, had even time enough to make their peace with God, and that he will have mercy on them. Those who had not, I trust God will take to his home, as the 'Shepherd his lambs,' and be merciful to them. We give thanks to Almighty God that we have a Mother. She followeth us with prayers to the throne of grace. We are all children of that Mother, and she will never cease to render supplications when her children are in trouble and affliction. I would request that the names of all who have perished be given me that they may be entered upon the list of last 'All Souls' Day.' We shall pray for them every Mass, and the names will be announced next Sabbath. I have received a proclamation from the mayor of our city, requesting all to set apart Tuesday next as a day of fasting and prayer. But the Catholic Church needs no such proclamation; she does not recognize any authority in a matter of this nature; her children are ever ready and willing to aid the unfortunate, without being 'authorized' to do it."

A Day of Fasting and Prayer.

In all the churches on the Sabbath was read a proclamation of the mayor appointing a day to be observed by a cessation of business, and appropriate services in the several churches. The announcement was made public through the newspapers of Monday, and every citizen of Lawrence favored an action which seemed to promise a result at once so soothing and beneficial. The following was the

PROCLAMATION.

"CITY OF LAWRENCE, Jan. 14, 1860.

"In view of the great calamity which has fallen upon our city like a thunderbolt from a cloudless sky, crushing it with a weight of misery which no earthly power can raise; shrouding it in a cloud of anguish which no human hand can dispel; binding in chains of woe which despair even cannot break, I recommend and earnestly beseech that on Tuesday next, all residents of Lawrence abstain from their usual avocations and labors.

"That they set apart that day as one of prayer.

"That the people meet in their respective places of worship, to join in those religious ceremonies which the occasion demands, and there publicly ask of God that he would temper our affliction with mercy; that he would restore to health and strength those now languishing in pain and suffering; that he would provide with a father's care for

the orphans and widows; that he would comfort and sustain those bereaved of husbands and of wives, of parents and of children; that he would so order the signal destruction of life and property, that good may come out of this great evil; and that this, our experience, may teach wisdom throughout the land.

“DANIEL SAUNDERS JR., Mayor.”

The day thus set apart was mild and springlike. The sky was clear, and the sun shed a mantle of cheerful warmth over the city, wherein were hearts upon which rested a leaden weight of woe—hearts cold and sad in the midst of all the sunshine and sympathy which a kindly Providence and loving friends bestowed. The appalling catastrophe, one short week before, with its train of melancholy events, had subdued the worldly zealous, humbled the haughty, and brought the high and the low into closer fellowship than ages of prosperity could have done. There were none so poor but could add their mite to the general fund for the relief of their suffering fellows, nor yet so rich as to despise the counsel that cometh from above. To this source they appealed for assistance. Christian people of all denominations betook themselves to their respective churches, acknowledging their dependence upon the Giver of all good, and drawing consolation from the lips of the preacher.

Services were performed in all the churches, and the prayer-meetings, continued through the day and evening, were imbued with that spirit of earnestness which could only be awakened by some event that laid hold of the hearts of the people. The city was draped with emblems of mourning, and shrouded with an impenetrable gloom. The fears of some that a day's liberty would be largely abused proved groundless. Nearly all of the population, not confined by the care of the suffering, were abroad. They filled the churches and thronged the streets, and thousands visited the City Hall. No scene of drunkenness or ribaldry disturbed the mournful spirit of the day. So far as could be observed, the demeanor of every person was consistent and appropriate. Too many hearts were wounded or warned to allow of levity or of much indifference. The places of business were closed, the hum of industry was not heard, and the streets wore a Sabbath-day appearance, sanctified by an unusual solemnity. In the house of God a deep interest prevailed. To many it was an occasion of unparalleled moment. To those who in this calamity, saw so near the hand of God, indifference was impossible.

Mass for the Dead.

At the Church of the Immaculate Conception (Catholic, Rev. Mr. Taaffe), Thursday was set apart and most appropriately observed. The house was well filled and the services were of that solemn and impressive nature peculiar to the Catholic Church. The Very Rev. Mr. Williams, Vicar General of the Diocese, officiated, assisted by Rev. Mr. Roach, of Randolph, as deacon, and Rev. Mr. Lynch, of Boston, as sub-deacon. Rev. Mr. Healy of Boston Cathedral, acted as Master of Ceremonies. Father McElroy, S. J., of Boston, delivered a discourse upon the occasion. The drift of the sermon was to afford consolation and strengthen confidence. He counselled those afflicted not to grieve, but to receive their affliction from the hand of God their heavenly Father, whose mysterious ways we could not divine. He spoke of the wellspring of charity, flowing freely, and showed the cause for gratitude to God for inspiring men to relieve the wants of the suffering. The Church did not lose sight of its children even in the next world, and thus they were collected together in its sacred edifice to pray for their repose. A holy sacrifice was offered for them to-day. He closed by showing what a solemn warning was thus given to all, and urged his hearers to take heed and prepare for death and for any event of life. The clergymen present, besides those already mentioned, were

Rev. Messrs. Taaffe, O'Donnell, of Lawrence, McNulty, of North Boylston, John O'Donnell, of Nashua, McDonnell, of Haverhill, O'Connor, of Lowell, Wiget, of Boston, Hamilton, of Charlestown, Carroll, of Foxboro', Flood, of Watertown, Crudder, of Lowell, Leach, of Newburyport, Gray, of Lowell, and Strain, of Chelsea. The choir from the cathedral of Boston sang Mozart's Requiem in solemn, beautiful style.

Burial of the Dead.

Several funerals had taken place on Saturday, attended with a haste which betokened too plainly the sad exigencies of the case. Coffin-makers and undertakers had been at work day and night, and the harvest of death, garnered during the past week, had, in gathering the living to their fathers, ploughed furrows in the bosom of many a country graveyard, and of many a once happy family. One coffin-maker stated that he had supplied thirty-nine coffins for the victims of the disaster who received "Christian burial," besides a number of boxes in which the remains of several of the unknown and unwept had been buried.

Nine bodies and parts of the remains of others were buried in two boxes, in the Lawrence cemetery. The body of Samuel Rolfe was taken to Newburyport for interment; that of Miss Irene Crosby to Chatham, Mass. The funeral of Catharine Sweeney took place on the Saturday after the accident. Some half a dozen men, and an equal number of women, followed the remains to the grave on foot, the women wringing their hands and giving vent to the most bitter lamentations as the simple cortege moved through the streets.

The funeral of Miss Ann Cullen, one of the victims, took place from the residence of her brother, in Essex Street, Chelsea, on Friday. She died shortly after being rescued from the ruins. Her sister, who had not seen her for years, left Chelsea on the afternoon of the sad catastrophe for the purpose of meeting her at the mill. She arrived in Lawrence just at the time the building fell, and in the morning, among the remains of those conveyed to the City Hall, she recognized the body of her sister.

The Funeral of Lafayette F. Branch.

Mr. Branch was the only overseer who perished. His funeral ceremonies were performed on the 15th of January at the Lawrence Street Congregational Church, Rev. Dr. C. E. Fisher officiating. The funeral was attended by a portion of the City Government, and a numerous assemblage of the congregation, of which the deceased was long a member. The corpse, attired in citizen's dress, was enclosed in a black walnut coffin, which bore a plate inscribed with the name, date of death, and age of the deceased. The remains, though five days inanimate, presented a remarkably lifelike appearance. Prior to the removal of the body from the former residence of the deceased, No. 2 Pemberton Block, services were performed by Rev. Mr. Fisher. The coffin was borne into the church and placed upon an elevated pedestal in front of the altar. The bearers were Thomas S. Winn, J. M. Reed, John Tatterson, late overseers in the Pemberton Mill, R. M. Hobbs, George A. Fuller, and Caleb T. Briggs. As the coffin passed up the aisle, the organ pealed forth a solemn dirge. The services commenced by the singing of the 665th hymn of the collection:—

"Thou God of hope! to thee we bow;
Thou art our refuge in distress;
The husband of the widow now,
The father of the fatherless."

Selections of Scripture were read by the preacher, after which he addressed the

mourners in words of consolation, and in the prayer which followed, invoked the blessing of the Almighty upon the widow and the fatherless children of the deceased.

LIST OF THE DEAD AND INJURED.

The following list of the dead, badly injured, slightly injured, and missing or unidentified, has been officially revised and corrected, and is believed to be accurate. It was compiled by Hon. John R. Rollins, Ex-Mayor. It will be seen that the total number of dead and missing, is ninety; of this number, seventy-six bodies have been recovered and recognized, thirteen are yet unrecognized, leaving but one missing.

Dead—Total, 76.

Mary Ann Bannon,	Lizzie Towne,
Bridget Bronder,	Ellen Mahoney,
William Jordan,	Orin C. Nash,
Joanna Cronan,	Samuel Rolfe,
Irene Crosby,	Bridget Loughrey,
Hannah Shea,	Morris C. Palmer,
Margaret Sullivan,	Matthew C. Ryan,
Dennis Leonard,	Hannah Mulinex,
Wm. Metcalf,	Mary McCann,
John C. Dearborn,	Catherine Cooney,
Peter Callahan,	Ellen Sullivan,
Bernard Hollifield,	Ellen Dinneen,
Margaret Hamilton,	Mary Dooley,
Ellen Colbert,	James Harty,
Mary Griffin,	James Hartigan,
Catherine Hannon,	Catherine O'Brien,
Michael O'Brien,	Mary Nice,
Margaret Foley,	Mary Murphy,
Mary Culloten,	Catherine Sweeney,
Kate Conners,	Margaret Coleman,
Margaret Fallon,	Mary Barrett,
Joanna Hurley,	Elizabeth Dunn,
Mary Howard,	Catherine Harrigan,
Martin Hughes,	Augusta Ashworth,
Margaret Corcoran,	Ellen Ahern,
Bridget Crosby,	Patrick Connor,
Catherine Kelleher,	Lafayette F. Branch,
Eliza Orr,	Ellen Conners,
Julia Roberts,	Ellen Roach,
Bridget Ryan,	Margaret Turnor,
Wm. Kane,	Mary Burke,
Wm. Adolph,	Bridget Gallan,
Elizabeth R. Kimball,	Lorinda Gilson,
Richard Lunney,	Jane Thomas,
Ann Sullivan,	Katy Clarke,
Mary Jewett,	John Hughes,
Richard Midgely,	Maggie J. Smith,
Ellen Hickey,	Celia A. Stevens.

Missing or Unidentified.—Total, 14.

Bridget Kelly,	Joseph Bailly,
John McNab,	Henry Harrigan,
Asenath S. Martin,	Dora Harold,
Sarah Lyons,	Mary Ryan.
Ellen Linkinson,	Jeremiah Ahern,
Margaret Donnelly,	Ellen Robinson,
Eliza Wahiggan,	Lizzie A. Flint.

Badly Injured.

Mary Armstrong,
 Eliza Baker,
 Julia Blake,
 Jane Brooks,
 Ellen Bradbury,
 Elizabeth Burns,
 Ellen C. Barry,
 Richard Bradley,
 Ellen Bohive,
 Bridget Bradley,
 Jane Bradley,
 Owen Bremen,
 Jane Cragg,
 Mary Callagan,
 Kirans Corkland,
 Mary A. Coleman,
 Margaret Cremen,
 Margaret Kirburg,
 Mary Cummings,
 William Childs,
 Elizabeth Connell,
 Mary Crosby,
 Joanna Carty,
 Mary Callaghan,
 Mary Callahan,
 Catharine Conners,
 Thomas Conners,
 Charlotte Carleton,
 Mary Caren,
 Margaret Caren,
 Catharine Clary,
 C. Carney,
 Catharine Campbell,
 James Davis,
 Cate Dunley,
 Mary Dougherty,
 Michael Daley,
 Sarah Dew,
 Anna Doraty,
 Margaret Donnanahan,
 Catharine Dolan,
 Sarah Doyle,
 Mary Fox,
 Mary A. Emery,
 Robert Flannagan,
 Almira Ford,
 Patrick Flannagan,
 Hannah Finnesy,
 Ann Falen,
 Constantine Fiedler,
 Ann Galvin,
 Hannah Garny,
 Mary Ann Hickey,
 Kate Harrigan,
 Owen Harran,
 Ellen Hannon,
 Rosana Heirop,
 Margaret Hayden,
 Jennette Henderson,
 Robert Hayes,
 Wm. Henry Hall,

Betsey Heath,
 Maria Hall,
 Damony Hone,
 James Hickey,
 Hannah Hayes,
 Mary Fenherty,
 John Fanon,
 Catherine Ivory,
 Job Jewett,
 Lizzie L. Kingsbury,
 Elizabeth Kelley,
 Mary Kennedy,
 Lawrence Kennedy,
 Rose Kenney,
 Margaret Kerby,
 Henry Koehler,
 Ellen Lyons,
 Michael Lavin,
 Mary Laughton,
 Catherine Landers,
 Rosana Lynch,
 Jessie Leach,
 Abby Pottle,
 Mary Muichaney,
 Ann Manion,
 Mary McGovern,
 Mary McAleer,
 Catharine Mulchaney,
 Barney McGee,
 Michael McCormick,
 Ann McKee,
 Ellen McCarty,
 Ellen McKanny,
 Wm. McComb,
 Samuel Martin,
 Ellen Mahoney,
 Catharine Manyan,
 Patrick O'Donnell,
 Patrick O'Hare,
 Caroline O'Brien,
 Jerry O'Brien,
 Hendessy Smith,
 Henry Hickman,
 John Quinn,
 Ann Rafferty,
 Margaret Ryan,
 Catharine Rooks,
 Jeremiah Reardon,
 Fanny Reed,
 Ann Scanlan,
 Bridget Scanlan,
 Frank Scannell,
 Mary A. Sullivan,
 Augustus Sampson,
 Margaret Shory,
 Robert Seaver,
 Wm. Shackford,
 Mary Sampson,
 Eliza Watson,
 Elizabeth Ward,
 John Welsh,

Winna Waters,
 Sarah Warner,
 T. H. Watson,
 D. Watson,
 Michael Wrens,
 Wm. Young,

Mary York,
 Sarah A. York,
 Joshua Jewett,
 James Kenney,
 Ira D. Locke,
 Catharine Jordan.

Slightly Injured.

Benj. G. Adams,
 Edward Blake,
 Caroline Brown,
 Abby Brown,
 Hannah Blake,
 Domonic Burns,
 Mary Burns,
 Patrick Burns,
 August Bergen,
 Jennie Bercham,
 Margaret Bulger,
 Timothy Bukley,
 Ellen Bukley,
 Catharine Bresnehan,
 Bridget Barry,
 Mary Broder,
 Lucy Boynton,
 Margaret Babb,
 Mary A. Brussell,
 Ellen Connor,
 Catharine Carroll,
 Ellen Clary,
 Catharine Cussock,
 Catharine Callaghan,
 Thomas Connors,
 Catharine Cameron,
 Mary Colbert,
 Edward Clark,
 Edward Calbert,
 Nancy Connelly,
 Catharine Callaghan,
 Mary A. Carkland,
 Kate Claney,
 Patrick Creley,
 Ellen Cain,
 Ellen Collins,
 Hannah Carl,
 Hannah Callaghan,
 Mary Daley,
 Julia Daley,
 James Dearborn,
 Mrs. James Dearborn,
 Mary Duffee,
 Margaret Donovan,
 Hellena Donovan,
 Hannah Daley,
 Austrice Day,
 Hannah Daley,
 Dominick Dowd,
 Arthur Dick,
 Thomas Durrell,
 Margaret Dooly,

Bridget Dolan,
 William Elwood,
 Ann Farmer,
 Mary W. Fernside,
 Selina Fernside,
 Catharine Farns,
 Mary Falen,
 Daniel Galvin,
 Mary Glynn,
 Mary Griffin,
 Michael Garven,
 Thomas Goodwin,
 Hannah Hurley,
 Hannah Harkins,
 Patrick Higgins,
 Ellen Hartigan,
 Michael Hart,
 Margary Heirop,
 Jane Haley,
 Catharine Hartigan,
 Thomas Hopping,
 Michael Howard,
 M. King,
 Coughlan Kean,
 Mary Kellren,
 Mark Kelty,
 Mary Kiernan,
 Mary Lavin,
 Ellen Linehan,
 William Lawler,
 Jane Leyden,
 Rosie Mulvey,
 Charles Morgan,
 George Marther,
 Alice McCarty,
 Patrick McCarty,
 Ellen Murphy,
 Mary Moore,
 Robert Moore,
 Mary Metcalf,
 Henry Martin,
 Isaiah Majerson,
 Kate Manning,
 Patrick McQuinn,
 Ellen McCarty,
 Ellen Murphy,
 Catharine Morrisy,
 Hannorah Mahoonney,
 Catharine McSweeney,
 Catharine Moran,
 Ellen Murphy,
 Edward Murphy,

Cynthia McCarter,
 Darius Nash,
 William O'Donnell,
 Margaret O'Brien,
 Barney O'Connell,
 Mary O'Donnell,
 Margaret O'Connors,
 Mary O'Donnell,
 Margaret O'Donald,
 Catharine Phelan,
 Mary Phelan,
 Anna M. Patch,
 Daniel Parant,
 T. W. Roberts,
 Thomas Rowley,
 Ann Reagan,
 Patrick Ryan,
 Anna Ryan,
 Catharine Ryan,
 Francis Rafferty,
 Ellen Ryan,
 Elizabeth Ryan,
 Mary Russell,
 Daniel Reyah,
 George Raperson,
 Margaret Reardon,
 Rosetta Robinson,
 Matthew Robinson,
 Ann Reardon,
 John Reardon,
 Michael Reardon,
 Thomas Roach,
 Keziah Stevens,

Betsey Scanlan,
 Jerry Sullivan,
 Arthur Sullivan,
 Mary Sullivan,
 Margaret Sullivan,
 Bridget Sullivan,
 Mary Sullivan,
 Helmina Staigeer,
 Hannah Shean,
 Jane Sweet,
 Eliza Stanley,
 M. W. Stiles,
 Prudence Spread,
 Margaret Seavy,
 Mary Sugden,
 Bridget Sampson,
 Mary Slaven,
 Margaret Staven,
 Dennis Swaney,
 Henry Stoodley,
 Vienna Stratton,
 Sovina Stratton,
 John Stevenson,
 Michael Sullivan,
 Margaret Sullivan,
 James Wheeler,
 John Ward,
 Mary Welch,
 Sharon Wilkinson,
 Elizabeth Watson,
 Catharine Welch,
 Sarah York.

THE CORONER'S INQUEST.

An inquest over the bodies of those killed by the catastrophe, commenced Thursday morning, January 12, at the City Hall, in Lawrence.

Dr. William D. Lamb was coroner; and the jurors were,—Messrs. W. H. P. Wright (foreman), J. H. Dana, Edward Page, Leonard Stoddard, Leonard F. Creese, and S. P. Simmons.

Caleb Saunders was chosen clerk.

The evidence of witnesses was then taken, continuing ten days. We give an abstract of the evidence, prepared for the purpose.

First Day.—Morning Session.

TESTIMONY OF F. E. CLARKE.

I was paymaster on the corporation, and was in the building on the day of the accident; I was in the general office, and started to go into the paymaster's office, when I was stunned by a sensation like an earthquake; the door from the main mill, the carding-room, was broken out by the hands there; I went out, and when I got out and stood on the railroad track, the end wall of the mill fell down; it was about half-past four o'clock; I saw steam escaping from the boiler after the accident; the boiler was in an out-building, connected with the main building at the south-west corner; I have not a list of all those employed; there was one in the counting-room,

but it was destroyed by fire; after the accident, I was engaged in the rear of the building, relieving those from within, until just before the fire got under way; after going away for a short time, I returned, and found that it was too late to save the list; I had locked up the safe; Frank Robbins told me that he was near by when the fire commenced; in the safe there is no perfect list of the hands employed; it was left out of the safe, as the clerk was using it at the time; there is no means of knowing how much is due to each of the hands, excepting that due bills were given to all the hands, excepting in the weaving-room, up to the last Saturday in December; never knew of any settling of the mill before; thought I had noticed that there was not so much shaking while in operation as in other mills.

TESTIMONY OF HENRY L. NEWHALL.

I was in the employ of the Pemberton Manufacturing Company as clerk; I was there on the afternoon of the 10th inst., at my desk; first I heard was a slight crash, which I did n't notice much; then a sound as of wind, and then the building falling to pieces; I went to the outside window and jumped out; before I reached the ground the building was in ruins; there was no more than two or three seconds between first and second noise; I had just time to warn Mr. Clark, and we rushed out: I got out on the north side of the building; never heard any body say the building was dangerous before; never felt in any danger myself; I should judge that the south end fell first; I should say that no more than four came out of the room on the level of the office; the second hand came out just ahead of me, and went down; there were somewhere between 900 and 950 operatives in the employ of the corporation; I should think there were about seven hundred in that part which fell; can form no idea of how many came out without assistance; saw one woman jump from the upper story to the ground; did n't look towards the mill when I heard the crash; I took my hat and left; I had in my possession the last pay-roll; I was writing pay-envelopes, and left the pay-roll in the desk; there was one pay-roll in the safe, which was made up in August; I think I was at home when the building caught fire; I left the building at half past eleven o'clock.

TESTIMONY OF JESSE GLOVER.

I was overseer of the repair shop of the Pemberton Manufacturing Company; I was present on the corporation on the afternoon of the 10th; I was about five rods from the mill, between our building and the Washington mills, on the track that goes through the yard; I was looking at the building; think I saw the building settle at the lower end before I heard any noise; then there was a sound of wind rushing, and the flying of mortar; it commenced at the lower end to settle, and ran right along the building as fast as a man could run; it was immediately after the crash that I heard the escape of steam; saw no bricks thrown into the air, nor timber; think the sound of wind was occasioned by the fall of the building; the hissing was like a forty horse engine, with a pipe broken off; did n't hear that until the building was half down; I supposed that a pipe was broken; could not tell which part of the building gave way first; I have examined the boiler since, and I believe it was all right, and that there was water enough; I went to the repair shop to see if any of the men were hurt; a part of the wall was knocked in by the falling mill; I went then to the assistance of those inside; I was a hundred feet from the fire when it broke out; I should think it was a little north of the center of the mill; I could n't tell in what room; it seemed to come from the top of the ruins; there were a good many people about the

fire when it broke out; I have seen some little cracks about the building, but nothing serious, no more than frequently seen in brick buildings; I never did anything to strengthen the walls; think something of that kind has been done; I have been employed here three years and a half; I have been called upon sometimes to level up the machinery, as is frequently necessary in all mills; never leveled up more than half an inch; some of the shafting has never been leveled up since I have been there; never have been called upon to do any thing to support the foundation; when I went there I heard of one of the pillars settling in the cellar; I can give no reason for the falling; my impression has been that the walls were light; I heard of some trouble to the building before I got there. [Witness then pointed out on a plan of the building where he had noticed a crack in the brick-work.] On the corner next to the shop there was a crack extending between the building and the chimney the whole height; at the top this crack was half an inch wide, and one-fourth of an inch wide at the bottom; this was on the south-east corner, next to the repair shop; the crack ran straight up from the top of the boiler-house to the top of the mill; the building and chimney were not built together; never have known the walls to give way since I have been there; have moved some four fly-frames, so that they came near together; they weighed about a ton apiece; the men who were at work on them were saved; think they were not moving them at the time; I have not examined the foundation since the accident; never have known of any thing serious happening to the foundations; think between the windows the walls were eighteen inches thick; the windows were very large. Have understood that the timbers were not bolted to the walls; think the building was not so well constructed as buildings of that size should be; think bolts have been put in to strengthen the chimney.

TESTIMONY OF JOHN E. CHASE.

I am agent of the Pemberton Manufacturing Company; have been their agent six years, ever since the mill started; I was in the centre of the spinning-room, in the third story, near the wall, at the time of the accident; Mr. Howe, treasurer of the company, was with me; we were going south, towards the river; I was conversing with Mr. Howe, or rather I stopped him to call his attention to some machinery; we then saw about forty feet of the building, south end, falling, and before I got Mr. Howe around, the crash had come half way of the mill; think I saw this before I heard a noise; all I saw was the centre of the mill falling; we escaped out into a wing; I could hear the wind and feel the splinters, as though the timbers were falling; the building was five stories high; nothing fell on me while I was escaping, in the cloth-room; there was less weight above at that end, than at other parts of the building; the first floor was the weaving-room; the second, spinning; the third, carding; the fourth, carding and spinning; the fifth, dressing, spooling, and finishing; there had been a change of four fly-frames that day, from that end which fell, to the west side; before that they were in the south-east corner; after the crash I felt so faint, that I could not do much; the people of the cloth-room were there when I got there; don't think many got out the way I did; I went below, and found the safe open; locked it, and went out; can give no idea of how many were saved; we have given notice to have all hands now alive call and register their names at the Essex counting-room; know of no way to get at a full list of those employed in the mills; I was on the railroad track when the fire broke out; at the time of the accident the gas was lighted in all the rooms except the carding-room; Mr. Pindar, superintendent of Washington mills, said he saw the origin of the fire; there were cracks at each side

of the chimney, caused by the swaying of the chimney; they were half an inch wide at the top, and disappeared at the second story; the chimney was stiffened, but not wholly on that account; the crack followed the window corners; never saw any indication of the building settling; the beams settled or sprung about two inches when we first put them in, but they were firm in that condition, and were all trussed; the trusses were extra to the contract; there were no cracks at the time they were put in; there was another small crack, also caused by the swaying of the chimney; the building was 284 feet long, and 84 feet wide, outside; attached to that was an L., which did not fall; there was also a sort of shed on the west side, used for weaving; noticed less motion in this building than in other mills; always believed the mill perfectly safe; there was some talk about the building being unsafe when it was built, but after it stood six years, I considered it safe; there was at one time a leakage of the penstock, which affected the river building, and not the main mill; another leakage washed away some of the foundation from the south-east corner; the building was examined at that time.

TESTIMONY OF JOHN TATTERSON.

I was overseer of the wing department on the first floor; my office was in the north part of the building, and I just stepped from it into the main room, when I saw about two-thirds of the lower part coming down with a downward curvature in the centre; I went into the corner of the room where the gas meter was; there was a bank wall which protected this part; the part which I saw falling was south of the middle; noticed no bulging of the walls; it was done very quick. Heard no explosion; I was assisted out from the place where I was confined about twenty minutes or half an hour after the fall; have been in the employ of the corporation five and one half years; when I had been here about two months, one pillar settled, and the settling (about two inches) extended to the top; the foundation did not settle; there was an iron called a pillar, which went through the pillar lengthwise; on the pintle was a flange which rested on the head of the pillar; by the pressure the flange was broken off. Have nothing in my possession to show who worked for me; think I can tell from memory; the certificates were not distributed — they were in my desk, and were consumed; the centre of the building seemed to fall faster than the walls; there was some gearing at the south part of the building, which was considered not properly put up; think about thirty of my hands are lost; never felt any insecurity here.

TESTIMONY OF JOHN PINDAR.

I am employed at the Washington Mills, and was there on the afternoon of the accident; I was coming out of the Dye House; was not looking at it; was at the extreme end of the Washington Mills from the Pemberton; I was there from that time until 3 o'clock next morning; my attention was called to it by the second overseer of the Dye House; I was present when the fire took place; persons were picking around among the ruins looking after dead persons, where a large amount of cotton was exposed; said I, "For God's sake, look out for fire with your lanterns;" there were four or five persons there with two lanterns; then soon after I saw the fire blaze up, and the people came out, and I saw but one lantern come out. The fire took from the loose cotton hanging around the carding machines; heard nothing like breaking of glass; have heard no individual say he saw a lantern broken; the lantern looked like a common oil lantern; heard a voice below among the carding machines over which the roofing had fallen.

TESTIMONY OF RICHARD H. PLUMER.

I was present on the ruins of the Pemberton Mills, the evening of the 10th; was there at the time when the fire originated; was stationed at one end, and I left that place in charge of Mr. Coolidge and went towards the center of the building to cut a hole; we cut a hole in the roofing about ten feet by three feet; we found some dead bodies there, and there were some persons there endeavoring to get out another body; two persons were holding lanterns for these men; one of the lanterns dropped; can't say whether it broke, but fire sprung up from some loose cotton; I called for water, but found none; took off my coat to cover the fire and smother it, but it had got so large that I could not. Did not see the mill fall; there were living persons in the ruins when the fire broke out; a man was taken out with his leg broken; saw a woman alive whom we could not save; the fire originated about one hundred feet from the south end of the mill, a little east of the center.

Afternoon Session.

TESTIMONY OF WILLIAM BARBER.

Was present at the ruins until within half an hour of the time when the fire broke out; I carried a lantern to the ruins and kept it with me all the time, and carried it home with me; know no cause for the building falling; I thought the building was too light.

TESTIMONY OF B. D. GOWAN.

Am a mason; have worked as a mason since 1816; Mr. Fletcher had the contract to build the foundation of the Pemberton Mill; I did it by the yard for him; I never saw any contract; there was a direction to build the foundation down to a proper depth; they dug it out, and when they were ready for us we laid the stone. It was from three to five feet below the surface; the bottom was a soft, sandy loam; we had been accustomed to go deeper for a solid foundation; in water-power works they usually lay the foundation very deep; the Bay State foundations were very deep—twenty feet; the Atlantic has a room below the surface; I don't know that I noticed any settling while laying the foundations; the south end was dug out deeper than the rest; it was softer there than anywhere else; there was water on the bottom through the whole excavation; supposed that it came through from the canal; there was no defect in the material of the foundation; the foundation was good as far as it went; I thought at the time it was not deep enough, especially at the south end; there the soil was spongy, and of a quick sand nature; spoke to Mr. Tuttle about it at the time; was in the yard a good part of the time when they were building on the foundation; never noticed any particular or uncommon settling of the building; the wall was about six or seven feet wide at the bottom, and four and one-half at the top; thought it was wide enough; I was there to put in foundations for some piers, over which were columns, to make the building stiffer; the building was not completed when the piers were put in; the pillars were trussed above after these foundations were laid; the foundations of the piers were about the thickness of the stones below the foundation of the walls; the wall trenches were about a foot below the surface on the inside; can't say whether I was ever called upon to put any thing around these piers to support them; they were of brick; the posts in the mill are of iron; I was present when the building was erected; saw the ties put in, and I thought the building was too light; we thought the walls were too light because the windows were so large there was little space between the sills of the upper and the caps of the lower windows;

some of the timbers were rather short going across the walls, and pilasters were built out to support them; the timbers went into the inner wall, but did not extend to the outer.

TESTIMONY OF WM. SULLIVAN.

Did the excavating for the Pemberton Mills; Capt. Bigelow gave me the job; I did it by the yard; the contract specified that I should go down until I got to a good foundation; Mr. Coolidge was the engineer; he told me when I had got deep enough; the excavation was about ten feet deep at the end next to the river where the wheel pit is; the wheel pit was in the southeast corner, and from there we stepped up; we came up next to gravel, and then to sand; the wheel pit was on hard pan; the water was two or three inches deep at the lower end, and at the other end it was only moist; I excavated for a part of the Atlantic Mills; they went down from 16 to 20 feet below the surface of the yard; I excavated the last mill of the Atlantic Corporation on contract; the bottom of the Pemberton Mill excavation was more solid than that of the Atlantic which I excavated; never heard of its settling.

TESTIMONY OF JOHN B. TUTTLE.

Reside in Lowell; am a brick-mason; have been in that business thirty-four or thirty-five years; I was one of the firm that put up the brick part of the Pemberton Mill; the firm was John B. Tuttle & Co. (John B. Tuttle & Gilman Tuttle); I took the contract from Capt. Bigelow. [The witness then presented a copy of the contract.] There was water in the bottom when we commenced to work; there was one hole where the water came in where we procured our water to drink for two months; a drouth came on, and the water was dried up; I supposed at first that the water came through from the canal; have built many mills before; the east and west walls were double, each 8 inches, with a space of 4 inches between; about 20 feet of one end of the building was only 12; we built up pilasters to the second floor, projecting 8 inches; the third floor the pilasters were 4 inches, and above that they were dispensed with; after it was found that the timbers were too short, by direction of Mr. Bigelow or Mr. Coolidge, we took down part of the walls and built a projection inward five or six inches with brick and cement; half of the mill was up when we made this change; where the timbers were to come we headed over, and built the two walls together; I expressed myself at many times then that the walls were not sufficient for the building, if they were laid ever so strong; I told Mr. Bigelow so after the work was commenced; think any mason who has worked at the business twenty years would say so; frequently spoke of it to several people; told Mr. Childs when I was working at the Boott that I had my fears about it; think the walls would have been stronger if they had been built together; I know of no other mill with walls so light; never want to see another; some mills in Manchester are built with double walls, but none so light as these; the great width of the mill required stronger walls; our old-fashioned factories are from forty-five to fifty feet wide; these walls were all cut up with windows; we used just such mortar as we were ordered to; Mr. Coolidge was about the building nearly all the time, and Capt. Bigelow was there occasionally; ordinarily factory walls are twenty-eight inches for the first story, twenty-four for the next two stories, and sixteen for the rest; this mill was sixteen inches on the lower story, with four inches face; where the stairs went up at the southeast corner the wall was single—twelve inches thick; where the stones were placed for the main gearing, the wall was solid—two feet thick; the piers were built sixteen inches square, and they were afterwards

boxed up with brick, and made two feet square; I should rather presume that if the piers had given out, the walls would have fallen in; none of the timbers went through the outer walls; usually an iron goes through the outer wall from the timber, with a nut outside; the crack by the side of the chimney, near the center, must have seriously weakened the walls; the corners are most important to brick walls; don't think chimneys should be built with the building; never built a steam chimney before; the swaying of the chimney might have caused the crack, without any settling of the foundation; the bricks were very poor, being crooked and rough; the soft brick were thrown out; nothing was said about throwing out rough or misshapen brick.

Second Day. — Morning Session.

TESTIMONY OF STEPHEN WALLIS.

Reside in Lowell; am a mason; have been a mason for twenty-six years; helped build the mill which fell; I laid the first brick on it, and worked on it until it was finished; never examined the foundation much, but know that water was running through it on the easterly side, about 135 feet from the northerly end; it run out, so we used it for drink; it used to wash out quicksand, which in course of time might have caused it to settle; have been to the ruins since the fall; saw no indications of the settling of the foundations; if it had settled sufficient to cause the fall of the building, the stone would now appear out of place; the walls were twenty-inch walls, with space of four inches; I kept count of all the solid places, to number the bricks out of sight; at the corners we built two feet solid; at the door jams one foot solid; at the window jams four inches; we generally had eight ties under the window sills, being two bricks; the building was well tied, but the walls were thinner than any I ever worked on on such a building. On four-story mills I never worked on any walls less than two feet at the basement; think the pilasters on the first and second stories strengthened the bearing of the floor timbers; the timbers above were as long as those below, but the pilasters being dropped above, we built in the wall to increase the bearing of the timbers; never heard of an intention to make the building but two stories high; there was a small crack by the side of the chimney, supposed to be caused by a heavy wind which occurred while we were building the chimney; the crack followed the bricks through their joints part way, and then followed the window jams; there was another crack on the arch, which stills remains standing; the bricks were poor ones to lay, but they made solid work when laid; the mortar was good; didn't think the walls strong enough for so large a building, and I frequently expressed that opinion; I sometimes talked with Mr. Coolidge about the work; think I expressed my opinion to Mr. Coolidge about the walls; in the absence of the Messrs. Tuttle I was foreman of the work; if the pilasters had been continued through the whole building, I should not have considered it strong enough; have known another mill built with bonded walls; the new Merrimac Mill of Lowell was built in this way, but the walls were twenty-eight inches thick, and covered over with cement; think these walls would have been safe if they had been four inches thicker on the first three stories; the windows were too large; the window caps of the fourth story were the sills for the windows of the fifth story; we put cement in the mortar whenever ordered by Mr. Coolidge.

TESTIMONY OF MORRIS KNOWLES.

Reside in Lawrence; have been a carpenter thirty years; worked on the building which fell; did the work on an agreement, there being no written contract; it was to

put on so many floors, &c., (naming the whole;) received a specification of the style of the building, with the kind of timber to be used. The timber was furnished me, except the window frames and sashes; think I ordered them for five stories; think the upper windows were one light shorter than the others; think before I made my contract it was fully decided that the mill should be five stories high; when I first commenced work the foundations were laid, and we laid the first floor; my partner had the principal charge of this job, and he is dead; on the lower floor the timbers laid on the wall and pilaster nine or ten inches; the timbers grew longer as they went up; on the second floor they were four inches longer, and the pilasters four inches less. On the third story the pilasters were discontinued. The timbers there were cut, supposing the pilasters would be continued, but they were not; it left some four or five inches to lay on the wall. The walls were then built in (as before described) to meet the timbers. Don't think this projection strengthened the bearing materially. On the story above, the timbers were cut longer. It was a wider mill than ever I was on before. Should think the greater width would require stronger walls. The Pacific Mill comes nearest to this in width; that is seventy-two feet; this was eighty-four; don't recollect whether I ever worked on any walls so thin as this; never knew of a mill where pilasters were thrown out to receive the timbers; have known them built up to strengthen the walls from the bottom; the caps of the iron pillars were not large enough to give much support; my partner, Mr. Dodge, and I spoke of it; each long timber was composed of three different pieces, joined together by a joint bolt, and under each joint was one of these pillars; where these timbers joined there were six inches for each end to rest upon, out of which was a half circle with a diameter of three inches, through which ran a pintle. Think the piers were strengthened at my suggestion; never saw a mill so cut up with windows as this; never had formed any opinion in regard to the strength of the walls, but think now the walls were hardly sufficient, considering the manner in which the walls were cut up; noticed a crack on the east side of the chimney; Mr. Chase spoke to me of it, and said it was caused by the swaying of the chimney; there was also a crack on the west side; these two cracks must have weakened the wall; I raised up the roof of the cloth room; I made alterations in the mill, partitioning off different rooms; none of these alterations weakened the mill; never noticed any settling of the building, nor heard of any; Captain Bigelow employed me to put in some trusses between the posts and the walls, and between the inner posts; think they made the building safer; the irons went from the timbers out to the center of the outer wall, and turned up about ten inches; they were an inch and a-half wide, and three-fourths of an inch thick. Sometimes we use this kind of iron, and sometimes another iron which goes through the outer wall, where it is secured by a washer; I did some sheathing on the wall on the south-west corner where the chimney was; it was in the upper room; it was not for the purpose of hiding the crack as I know of; it was sheathed along where they put in a vat; noticed the cracks at the time, and sheathed right over them; don't recollect of any statement made of a reason for the purpose of finishing up that corner; not positive whether I sheathed more than one story; don't recollect whether I made any expression at that time in regard to the effect of the crack on the wall; it was cracked way through the wall; think they went down through the upper story into the next, and there disappeared. (The witness was questioned at length regarding these cracks, but nothing tangible was gleaned from him.) The windows contained forty lights each; might have made some remark at the fire about my sheathing there covering up the crack; didn't suppose it was done for that purpose; the first story pillars are six

inches in diameter; above they are somewhat smaller; they were hollow, and they were not as thick as are generally used; they are usually full three-quarters of an inch in thickness; some of those I have seen broken in the ruins had large blow holes concealed inside; if properly cast their thickness could have been relied upon; my attention was called to these at one time by Mr. Coolidge when one broke, about a year after the building was erected; I don't know that I have formed any opinion of the causes of the demolition of the building which I should be justified to give without further examination; think it started from the giving way of the pillars, breaking the flanges of the pintles, and throwing it out; the pillars were ten feet apart one way, and twenty-seven feet the other; it is my opinion now that the accident didn't occur from any fault of the walls.

(Mr. Wallis and Mr. Knowles were then requested to visit the ruins and make such investigations as would further the ends of the inquest, taking such time as would be necessary.)

TESTIMONY OF BENJAMIN COOLIDGE.

Was assistant engineer of the Essex Company under Capt. Bigelow, and afterwards under Mr. Storrow; the ground on which the building was erected was a pasture in the fall of 1852: we laid the first stone the 31st of January, 1853; the soil was a dense, heavy, solid, sandy loam, remarkably solid and heavy; underlying that was what geologists call the boulder formation; this extends three or four feet; there are generally stones from 500 pounds to the size of a man's head, and so down to gravel, and this fine sand spoken of as quicksand; it is not quicksand; this, sifted in, made what I called rock pack below, perfectly solid; underneath that lies what is used in puddling here, in Lawrence; sometimes it is so solid, that it breaks out in large lumps when dry; when wet, as on the Pemberton, a little mud leaks out of it; under that is a peculiar quicksand full of water, very fine indeed; it sets almost instantly, when allowed to rest; it is useless to excavate it, we only touched this in the excavation of the wheel building, which is not the main building; there are veins of coarse sand in the fine sand and in the puddling; they seemed to be deposits; there was little or no water came through this fine sand until we came near the rocks; next to the canal the rock pan was full of water running as clear as crystals, sifting out this fine sand; the puddling formation, when an excavation was made in it gave out a little water which kept working until quite a piece, and made a little mud in the bottom; the quicksand was full of water; have been in the employ of the company since 1846, for ten years under Capt. Bigelow, since then under C. S. Storrow; the boulder formation is 8 feet below the surface of the canal, and it runs down to 16 feet below at the river; the excavation for the Pemberton was made from 8 to 16 feet; on the end next to the canal the foundation was on the rock pack; on the east side the foundation was laid on three foundations—boulder formation, the firm sand, and the puddling formation; the northerly end was from ten to twelve feet deep, resting on the puddling; the south end was made deeper till we came near where the chimney was to be when we stepped up to the boulder formation, on which the chimney was built; this was the most solid foundation, but we had to go lower on the rest of the south end for the main shafting; the westerly side was built on the puddling formation as far as the privy, near the center, when the excavation stepped up; to prevent the action of the water on the sand, a cement dam was made, cutting off the water from it; the average thickness of the foundation was from six to nine feet; there never was a foundation wall laid in Lawrence equal to that one for solidity and strength; it was made with

stones long enough to go way across the full width; think the foundations will be found solid now; in the north part, the piers rested on the rock pack; in the south part, there were deep holes dug down and laid on solid stones; the piers were laid with hard brick, and carefully tested cement; there were better rocks under this than under the Duck Mill; the Duck Mill was laid almost wholly on the sand foundation; the rest being on the drift or puddling formation; the settling of any part of the foundation would almost certainly be indicated by the breaking of a window-sill or cap; never saw one broken here, but have an indistinct recollection of hearing some one say there was one broken; recollect the trouble with the pen-stock, which was built under the superintendence of Capt. Bigelow; after that, I saw that nothing was disturbed there; the trouble with the pen-stock was a small affair; when I was digging the wheel pit, Mr. Putnam asked if it was dangerous; the pit was 25 feet deep, and being near the mill it looked frightful; I filled it up with ballast at his request, though I didn't think it necessary; any orders from the proprietors tended entirely to security; heavy iron straps ran from the southern timbers through the heavy south wall, and were fastened outside by a washer.

Afternoon Session.

TESTIMONY OF BENJAMIN COOLIDGE CONTINUED.

Never saw the plan of the building until it was placed in my hands, which was about the 1st of January, 1853, before the foundation was commenced; the plan was for five stories; don't know as the masons had any working plans; the carpenter generally went to the office and drew his directions from the general plan; the plan did not show the vault in the wall; think I was ordered to build the wall with a vault; I had directions to have the walls bonded; think the walls were built up solid above the timbers as far as the iron went, as well as below them; I would refer to the testimony of Messrs. Tuttle and Wallis in regard to the manner of building the walls, except the statement that the irons from the timbers only went inside of the inner walls, where I differ from Mr. Tuttle and agree with Mr. Wallis; think in the original plan the pilasters were carried into the third story; don't know why they were afterwards discontinued; Mr. Tuttle's description of the formation of the pilasters is correct; where the wall was projected out, I am unable to say whether the bearing would be as strong as if the timbers were long enough to rest upon the original wall; the brick work was satisfactory; it was done in the very best manner; the bricks were rough, but they were hard; the mortaring was flush with the edge of the bricks, laid with particular care; never knew any other mill with two 8-inch walls and a vault; think these walls were built with a vault to allow the mortar inside to be carbonized and made more solid; the vault also made the mill warmer, and was considered as strong, being well bonded; thought the bonding went up in the center by the pilasters; the stairways, the cornices and the sides of the doorways were built solid; the cornices were laid in cement; the walls were a foot thick for twenty-three feet on each side of the stairway.

Q. Do you think the walls were strong enough, considering the length and width of the mill and the weight on the floors?

A. It is not the business of the deputy engineer to criticise, but simply to obey the orders of the chief. I formed no opinion on the subject.

Q. What do you think now, as an engineer?

A. As an engineer I am unable to form an opinion without knowing more of the weight inside, and the force of the motion of the mills. As an individual, I think the walls were strong enough.

Q. Do you think the building was strong enough, considering that you have answered in regard to the mills?

A. I felt some apprehensions about the iron pillars placed in the mill; they were not furnished by the Essex Company; one of the pillars was dropped from a small distance and broken, and found to be defective; I reported the fact to Captain Bigelow; knew of a flange of the pintle of one of the pillars to break once, as testified by Mr. Tatterson; knew of a crack by the chimney, and one in the arch; I was told there was a crack in the chimney, by Captain Bigelow, who asked me how it happened, saying my foundation must have settled; I explained to him that it could not have settled; he was satisfied that the foundation had not settled, and remarked that the crack was caused by the swaying of the chimney; the crack destroyed the strength of that corner of the building as far as it extended; Capt. Bigelow said he might run an anchor down the wall, but that it would only extend the mischief further; never knew of any settling in the building, though I frequently examined it and asked of the engineer; I had an idea that the building was one of the most perfect of the kind, only I felt some apprehensions owing to my knowledge of the defects of the pillar. (A pillar was exhibited, very defective, and the witness explained its defect, being a mere shell on one side. He said he thought they were not sufficiently tested at the foundry.) Capt. Bigelow told me that the proprietors were to furnish the pillars; when I reported a defective one to him, he told me they came from Boston, or from some place near Boston; when the mill fell, I laid it to the pillars at once; I was responsible for the pillars, for I knew they were defective; such a pillar as this (the one shown) would be very dangerous in a mill; the water works of the Pemberton were at the river, and not at the canal; the rock pack not only falls away from the canal to the river, but it also falls away down the canal; I went under the mill within an hour after it fell; the east wall seemed to stand perfectly; any settling sufficient to throw the mill down could easily be told.

Q. What is your opinion of the cause of the mill falling?

A. I thought that one of the pillars was broken away, from the fact that the center fell in first; I think a pillar must have been broken about two-fifths of the length from the south end; if a pillar had been broken, there would have been a space 54 by 20 unsupported; no common walls could have withstood being pulled down; the floors were four-inch spruce plank; the floor was very strong; I think that the weight of the floors would help bring down the walls; the floors were not broken at all; they went down whole, breaking the pillars; the noise was described to me as one loud crack, followed by a succession of cracks, until the whole was blended in a frightful roar; do not think the fall was caused by any crack existing at the southwest corner of the mill; I don't remember of any imperfect pillars after the one spoken of; I considered that when I had notified Capt. Bigelow of the defective pillar, my responsibility was over, because we found no more imperfect; if I had known that the giving out of a collar had sunk two inches, I should not have considered that very dangerous.

TESTIMONY OF J. P. PUTNAM.

Reside in Boston; I was treasurer and a stockholder in the Pemberton Mill; I subscribed for a hundred shares, each \$1000, at its construction, being one-eighth of the whole; the first contract with the Essex Co. was made for a small mill, 10th April, 1852; this was to be made for John A. Lowell, who was then in Europe; on his return it was decided to make a large mill, and to let in other stockholders; Mr. Lowell owned 200 shares; the Essex contracted to build the mill at cost on a credit of five years; they were to furnish the materials; I used to consult with Capt. Bigelow, be-

cause I wanted to be sure everything was made strong; he was going to put in wooden pillars, such as they were then putting into the Pacific; I thought iron was stronger; I told him I thought I could get them for $2\frac{1}{4}$ cents a pound from a place in Boston; he told me to inquire about it and he would inquire at the Lawrence Works; I found a place to get them cheaper than he could at Lawrence; I got them made by Mr. John C. Woods, whose place of business I then thought was in South Boston; the draft for the pillars was sent to me by Capt. Bigelow; I have no doubt that the pillars were made according to the draft; for the lower story the pillars were to be 6 inches in diameter, and five-eighths of an inch thick; second story, $5\frac{3}{4}$ inches in diameter, and one-half inch thick; third story 5 inches in diameter, and one-half inch thick; fourth story, $4\frac{3}{4}$ inches in diameter, and one-half inch thick; fifth story, 3 inches in diameter, solid; felt some apprehension at one time about water running through the foundation, but that was remedied by driving piles, and felt no more apprehension on that score; again, when they were digging the wheel pit, I found it full of water one morning, and ordered it filled with stones, which was done, and that apprehension ceased; we intended to not stop at the limit of safety, but to make assurance doubly sure, without sparing expense. There was some question about the wheel pit and the manner in which the wheels were put in; I thought the plan we adopted was a very good one; with these exceptions, never heard any person say but what the mill was the strongest in the world; the first plan of the large factory was made just as the mill was before it fell; about one-third of the machinery was intended to be used for the manufacture of warps; finding ourselves unable to sell these so well as we expected, we were obliged to remove them, and looms were put into another building; no addition or change was ever made in the machinery of the mill, and five stories were decided upon as the height before the foundations were laid. In the mill there was a large, expensive and unequaled apparatus for guarding against fire; it cost some \$18,000 or \$20,000, probably twice as much as placed in any other of our mills; outside there were arrangements of platforms to use in case of fire — unusual precaution; after the machinery was put in, there were trusses put in; think the suggestion came from one of the directors; we supposed the floors were strong enough, but wanted to make them stiffer, and the mill was accordingly made very stiff; never knew of any settling of the foundations; knew of the crack by the chimney, and at first felt somewhat anxious about it, but afterwards believed there was no danger; the clamps (iron bands) appeared to tie the side and end walls so firmly together that we had no apprehension; no one ever spoke to me about the walls being cheaper than other mills of the kind; cheapness did not enter our minds; the piers were doubled under the lower floor to make the floor stiff, there being no apprehension that it was weak; think the mill was closely packed with machinery; the mill was afterwards sold to Mr. George Howe and Mr. David Nevins, who were the owners at the time of the accident; don't know whether there have been any changes in the machinery since they owned it; think the looms have been diminished; never had any reason to look forward to such a calamity; the Essex Company paid me for the pillars what I paid; I felt no responsibility in regard to the pillars except as far as acting as an agent for the Essex Company; this man furnished them for a small trifle less than the Essex Company could procure them for elsewhere; have no reason to believe that these pillars were not according to the plan furnished; don't recollect of Mr. Tuttle telling me that the walls were too light; he might have done it; if he did, I probably spoke of it to Capt. Bigelow; my confidence was not shaken in the strength of the walls; I didn't know that the pillars were discontinued above the second story; didn't know that the walls were only a foot thick by the stairways.

Third Day.—Morning Session.

TESTIMONY OF CHARLES S. STORROW.

Was agent of the Essex Company; in 1852 the Essex Company sold to the Pemberton Company a water power and mill site, at a nominal rate; besides this the Essex Company was to erect a mill for them on a credit of five years. The mill was to be erected in accordance with plans furnished by the Directors of the Pemberton Company, represented by Mr. John A. Lowell; the plans were drawn up by Captain Bigelow, under the direction of Mr. Putnam, whose orders were obeyed, and whose suggestions we were glad to have; it was for the interest as it was the desire of this Company to make the mill as strong as possible, and it was erected without regard to cost; whatever bills were approved by Captain Bigelow or Mr. Putnam, were paid without question by the Essex Company; I never after the building of the mill and until its fall heard any one say that the mill was not perfectly safe, nor did I have any apprehensions of it; I am a civil engineer by education; I didn't notice the details of the work, but I had perfect confidence in Captain Bigelow; the walls were built with a vault for the reason of using the given number of bricks to better advantage, as for the thorough drying of the walls; it gives more stability and prevents moisture from coming through.

The bills for the pillars was presented, of which the following is a copy:—

MR. J. P. PUTNAM		To JOHN C. WOOD		Dr.	
1853.					
March 28	— To 52 Base Plates, 2362, 2½c.	-	-	-	\$59 06
May 1	— To 260 columns as per contract, \$8 50	-	-	-	2210 00
	To extra weight, 52 columns, 171 each, 8802, 2½c.	-	-	-	222 30
					<hr/>
					\$2491 36
	Cr. by — Paid by Essex Company	-	-	-	1962 81
					<hr/>
					\$528 55

Correct — part having been already
paid by \$600, and the pay to

(Signed) J. P. PUTNAM, L. BOUVIE, &c.

May 7, 1853 — Received the above balance of five hundred twenty-eight dollars, fifty-three cents, being pay in full of columns. (Signed) JOHN C. WOODS,
By Albert Fuller.

Thus far I have seen no reason to believe that those walls or foundations have failed; if the floors fell in, the walls would have been thrown down if they had been twice as thick; as far as I can now judge, I think the cause of the accident came from the interior of the building, and not from the walls or foundations. If there had been any settlement of the foundations, there must have been cracks at the windows and in the window sills; if fifty-two piers had settled at the same moment, we could not tell what would happen; I know of no part of the mill built as it was because it could be re-built cheaper; am acquainted with Mr. Knowles; no man stands higher as a skillful, careful workman; no man is more competent to take such a contract; Mr. Dodge, his partner, was considered as good a builder as then was in Lowell; the firm was sent to me as the best builders in Lowell; I would further add that Mr. Coolidge was constantly inspecting the buildings; as deputy engineer, it was his business to lay the

lines and levels, and then to see that the materials were put together well ; don't know about the extra weight of the floors ; do not consider the pillar (shown yesterday) suitable for such a building. In my opinion the support of the beams, where they were spliced, was sufficient for a vertical pressure ; the water ways were all exterior from the building ; they did not run under the mill ; if there had been any undermining of the mill the shafting would have been thrown out of level, and its running damaged. I understand the mill was running perfectly at the time ; that gives me great confidence that there was no settling of the foundation ; the cost of the mill was generally considered high ; in the building of the mill precautions were taken not considered necessary by the engineers.

Adjourned at noon, over the Sabbath.

Fourth Day.—Morning Session.

TESTIMONY OF NEWELL D. DEAN.

I was in the employ of the Pemberton Corporation as second hand in the carding room, on the second story ; I was in the north end of the second story, in the center, widthwise, when the mill fell ; was within two feet of the northern wall, facing it, looking at some roving there ; heard a noise, and thought the shaft was broken ; looked towards the south and saw the floors near the other end coming down ; it seemed to be the whole width, and, when I saw it, it had apparently come a quarter way from the south to the north ; didn't feel the floor under me give way ; noticed nothing about the floor under me ; have no doubt the floor above me broke through first ; the north end of the building had all fallen in when I got out ; should think it was not over half a minute from the time the first noise was heard until the mill was all down ; it was about quarter of five o'clock ; I had just looked at the clock ; heard no cracking or snapping before I saw the floor falling ; the crash was like that of a heavy tree falling in the midst of a thick forest ; there had been no moving of machinery in my room that day, nor ever since I have been there — a year and a half ; the machinery in the Pemberton Mill was heavier than in some other mills ; the fly frames were heavy ; when the floor was falling through it seemed to be the lowest in the center.

BENJAMIN COOLIDGE RECALLED.

Have made examinations since I testified before ; I am satisfied that the foundations remain uninjured ; the brick piers seemed to be unhurt, except by fire ; saw nothing that would give any new clue to the cause of the disaster.

THOMAS P. WINN RECALLED.

No recollection of seeing anything falling above me ; should have known if the shafting had been materially disturbed half a minute before the fall ; should not think the mill was as firm as others in which I have worked ; thought the timbers were light in the building, considering the space of the building and the weight of the machinery ; since the fire I have seen several pillars very defective ; (he showed a pintle found in the ruins which appeared as if the flange had been broken off, allowing the column above to press down ; the pintles are iron bars, about twenty inches in length, which run from a cap on the top of a lower pillar to a cap under the lower end of a pillar ; above the pintle also goes through the joint of the floor timbers, where they connect.)

Afternoon Session.

TESTIMONY OF ALONZO N. WING.

Was employed at the Pemberton Mills, and had charge of the winding; I was in the fifth story, about a hundred and twenty-five feet from the northern end, walking towards the south; I looked through a glass partition, and saw the western wall falling in; I ran towards the north end; felt the floor settling under me, while I was running up an inclined plane; ran some eighty feet, when it all came down together; the floor seemed to settle first in the middle, lengthwise; I was running in the middle of the room; when I came down, the roof parted over my head, and one part slid off towards the canal; the north wall seemed to be shut out; the roof was nearly flat; should think the westerly portion of the floor fell a little first; heard no warning before the crash of the fall; had no knowledge that the speed of the machinery had been increased within two weeks; the floors were sagged in some places, but to no unusual extent, as they always are more or less in such mills; the weight of machinery was not heavier than in others; the carding machines were heavier than usual; they were on the second floor; they were made with iron frames; have worked in the Jackson (Nashua), and the Boott (Lowell) mills; the weight was not much less compact in those than here; never have been obliged to level up machinery here so much as in other mills; never knew of any settling.

TESTIMONY OF TOBIAS W. ROBERTS.

Have been employed in the Pemberton Mills about four years; was second hand in the carding-room, in the second story; was standing about two-thirds of the way down from the northerly end; I was lighting up; first saw the floor coming down from above; I was facing the west; a quarter part of the room as it appeared, coming down; turned round, but did not get many steps before I was struck by the roof from above, and knocked down; all seemed to come down in a mass; heard the bricks come around me, after I fell, in a few seconds; the usual work was going on in the room; had been no moving of machinery in that story; do not think there was any thing settled below before the roof came down from above; the floor seemed to come down nearly level, somewhat broken; found the lower floor somewhat broken, and crawled through a small hole into the weaving-room (first floor), and finally came out into the Duck Mill yard; was not bruised so as to leave any mark of importance; noticed no indications of fire when I was in the ruins.

TESTIMONY OF JAMES N. READ.

Have been employed in the Pemberton Mills since July 11, 1853; had been in the building at the time of the accident, and passed into my own department into the river building, and shut the door; the sound was something unlike any thing I ever heard before, but like what I have heard described as the sound of an earthquake, — a heavy, roaring noise; I thought at first the boiler had burst; turned to open the door through which I had come, but, on second thought, concluded that it was unsafe, and went into the river building; found my men jumping out of the back windows; one broke or dislocated his feet jumping out on the rocks; I shut down the windows to stop the panic, and we afterwards got out of an end window; I believe I was the first on the ruins from the outside; some of my men followed me, and some did not; the sound was one continuous roar, commencing louder than it continued; heard the escape of steam, but believe that the parting of the main pipe of steam for the heat-

ing of the building, might have caused it; the noise of the crash seemed so near me that I thought the building I was in was coming down; saw no lights among the ruins, except those carried by persons; never noticed any thing about the mill to make me feel insecure.

Evening Session—Resumed at Seven o'clock.

TESTIMONY OF MR. JOHN CRAWFORD.

Have been in the employ of the Pemberton Company for five years, until nine months ago, when I was discharged by Mr. Glover; I was in the Washington Mills when the calamity took place; I know how the fire took; it was between nine and ten o'clock; I was there helping to assist; my daughter was in the ruins, and I was looking for her; I got part way into the weaving room and was stopped by the ruins; at the time of the fire I was on the ruins, when a young man came up and asked me to hold a lantern; I held it for about ten minutes, when somebody asked for it, took it, and went down; he came back and said there was a deep hole there which went down to the card room; he went down again, and I said "For God's sake, be careful of the lantern;" he went down further, and I said, "For God's sake, don't go there with that light;" he went, however, and in going down, struck the lantern on some timber on the right hand side; when he struck the lantern it broke and immediately fell; I shouted "fire," and stooped down to pull him out; he was on fire himself, and the fire was spreading like gun-powder; I ran for our machine, and we got it out and went to work; the fire took near the center of the building, near the Duck Factory; I don't know how much the shafting was leveled up, but know that it was some, for I assisted in the job; they altered the hangers until they got the shafting to run; after this I was called to the card room and helped level up the fly frames; they were leveled up in various ways, and some of them were found half an inch out of level; they must, however, have settled more than an inch to do all this; had the floors all settled alike, the machines would not have been so uneven; the floor had settled more in some places than in others; after this the shafting was leveled up two or three times, but how much I don't know; the main line of the shafting runs about one third of the way from one side of the building and very near the first line of pillars, but the lines are not in the same relative positions in all the rooms.

TESTIMONY OF MR. BENJAMIN HARDING.

Reside in Lawrence; am a carpenter, and have been one for twenty-five years; have been employed in the Pemberton Mills, under Mr. Morris Knowles; commenced in the spring of 1853; my business was, in the first place, preparing beams to put into the mill; there were two pieces in each section, bolted together with three bolts; the pieces of timber were 7 by 16 before they were planed; they had a $\frac{3}{4}$ piece between, making the beam 16 inches square, for the first three or four floors; the next were an inch smaller, I think, each way; worked on the Pemberton until it was about complete; the time that I worked directly on the building was from 1853 to January, 1855; in the third floor the first half of the beams next to the canal were full length, the other half were a little short—four inches on each end; the center pieces alike throughout the whole; twenty-seven beams in a story, and I think about half were short; should think the short ones all rested from two to three inches in the main wall; some of them might have rested four inches; there were pilasters, if I recollect rightly, coming as far as the third floor, and then were discontinued; the timbers were not cut short; they were not ordered long enough; I cut them myself; think the projections were built from the pilasters.

I know that where these short timbers were put there were projections thrown out from the wall; wherever the projections were, the short timbers were placed; think the northerly half did not have these projections, because the timbers were long enough; on the next floor the beams were full length and rested eight inches on the wall; the mason work was carried up one half at a time, and then the timbers were laid; cutting the timber by order of Mr. Knowles, I asked him what I should do about it; he said, "Cut them as long as you can and I will tell Capt. Bigelow;" the result was the projections were built; the joints were well made with seven-eighths inch bolts; never knew a mill to be supported like this in the shoring; should think the best method was not used in the shoring of this mill; the building in all its parts, for its size, was rather slender; not only the columns were deficient, but there was too much space given to windows, making the walls weak; the machinery was very heavy for the surface—a monstrous weight to be held up by the columns below: never knew of any other mill with so long sections; the man who superintended the building said they should never be over 22 or 24 feet; they were 27; the timber used in the construction was good; the beams were pine, and I never was called to remedy any deficiency; it has ever been my opinion that the floors were loaded very heavy; there might not have been much greater weight to the square foot than in smaller mills, but we cannot put double the weight on double the length; should think that by changing the bearing, by moving the machinery, there would be danger of straining more; think it would have been better to have had the pintles and the pillars turned and fitted together; had no reason of apprehension because of the short timbers; I think if one of these pillars had broken off, so as to have rubbed down, it would have brought all above it down to the lower floor, taking at least two beams; after the first pillar had broken the others would break easier; have examined the ruins; have seen no evidence of the settling of the foundation; think there was a giving away of a column where that machinery was moved; I make up this opinion from remarks which I had heard made when the mill was examined, and from talk I had with persons in the mill; if a pindle had broken when the column gave way the effect would have been fatal; this mill had but very little vibration; less than most other mills; but this is not a proof of safety, or test of strength; the mill had a flat roof and was very wide, so there was no chance to vibrate.

Fifth Day.—Morning Session.

TESTIMONY OF CHARLES H. BIGELOW.

Reside in New Bedford; I am a civil engineer by profession at present; I have been civil engineer since 1846; before that time I was in the corps of Engineers of the United States army; I had the rank of Captain in that corps; I had charge of Fort Independence in Boston Harbor in constructing it; had been so for five years; was educated at West Point; graduated 1835; from 1835 to 1846 I was in the corps of Engineers; the corps is not composed of the whole class, but according as vacancies occur the first scholars enter it; two out of my class entered it; prior to having charge of Fort Independence, I was under Capt Thayer on Fort Warren, Boston, assisting in the construction of that; left the corps for private reasons, which led me to enter the civil business, and gentlemen in Boston wanted me to enter the manufacturing business; had an offer and appointment as manager of the York Mills, Saco, Me.; at that time Lawrence was about starting; the Directors of the Essex Company desired me to enter their employ; I had made up my mind to leave the service any way; I accepted Mr. Storrow's invitation, and came here as their engineer in March, 1846; then com-

menced working as civil engineer; during that time had charge of the construction of the Atlantic Mills, Machine Shop, Duck Mill, Pacific, and Pemberton, besides superintending the construction of the dam and the canal, the plan of the dam having been made prior to my coming here; while stationed at Fort Independence and Fort Warren was not employed in business like building mills, but had there all the elements of land works, sea walls, foundations, &c.; the nature of the arrangement between the Essex Company and the Pemberton Mill was such as to leave the parties free; the Pemberton party having right to make contract or employ force as it might suit them, and we were glad to have them do it; and they did so in repeated instances, such as making contract for the glass, all the shafting and gearing, for the iron columns, and to add force to the carpentering and other departments of the work; the provision was made because they wished to forward the structure, and to make it convenient for the managers, and satisfactory; it was the interest of the Essex Company to forward the mill most satisfactorily to the owners; Mr. Putnam was the managing director and financial agent of the owners; I was the engineer and responsible officer of the Essex Company; my relations with Mr. Putnam through the whole construction were those of mutual friendliness and respect, and I never saw in Mr. P. the slightest tendency to sacrifice safety or strength of the mill for the sake of saving expense. On the contrary he always went for the safest and strongest structure that we knew how to build, with due regard to economy; I placed Mr. Benjamin Coolidge in immediate charge of the work at the Pemberton Mills; he was to reside there, and he did; he spent his days there, and his nights, if necessary; Mr. Coolidge superintended the work with a vigor and fidelity that was untiring; his intelligence as an engineer and as a man, is well known in this community, as well as his honor as a gentleman and a Christian; he was to be my eyes and my hands, constantly present as far as we could make him so. Mr. Coolidge has stated the nature of the soil, and having kept notes he knows it as well as any other man in the world; I myself examined them critically and carefully at the time, and I am satisfied there is no better foundation for a building in the city of Lawrence, so far as the soil is concerned; it was a water-bearing soil naturally. The stones of our quarries are suitable for foundations, large, handsome stones, stratified granite or gneiss; they were amply wide at the bottom — nine feet, I think; (referring to the plan) the walls on the east and west side were nine feet, the south wall eight, the north wall six. Mr. Fletcher was the contractor for the foundation; the stones of the walls were so large that they extended beyond the width given, and were always in excess; it was intended to make the given width solid, and the ends projected over; I come now to brick walls built on these foundations; there was an underpinning, and it was backed with either brick or mortar walls; the walls have been stated as composed of two walls with a hollow space; it is an error; it was one wall with air flues in it, the air flues less than two feet by four inches in a horizontal area; there were four, longitudinally, in every ten feet; the wall was composed of eight inches of solid wall, flue four inches, and the remainder of wall ranging in thickness, making up the rest; where the flues were not, the wall was solid; the flues averaged one foot ten inches by four inches; the bonds were continuous from bottom to top where the walls were continuous. The thickness of the walls was amply sufficient to bear any weight by vertical pressure which could be brought upon them in this mill; there were estimates made of what weight each floor would be called upon to bear; we never built a mill without estimating the weight to be thrown upon the structure in all its parts; the floors were constructed with beams, each beam made of two parts, varying from 16 inches a little in depth, and making them, when built together 16 inches square, or there-

about, the timber was very good, and no objection ever appeared to it; they were put together in the very best manner by Messrs. Dodge & Knowles. The span these beams were to go over being such that they might sag or spring under the weight of machinery, a system of undergirding them with iron rods was adopted to render them perfectly rigid, which they always were; it was not because they were weak, but to render them stiff; the same system is adopted in every railroad car, so that they shall not bend down in the middle; this was the iron said to have been brought in to strengthen the walls; no other iron was ever brought in for the purpose; the rigidity of these beams has always been maintained, so that the shafting always run as near perfect under them as in any mill; the beams were anchored in the walls at the side; the irons were turned up at the ends, and went within four inches of the exterior of the wall, and then went up about a foot; there was a body of brick work built around the ends of the beams; the anchor irons pulled the walls down; they would pull the walls down before they would pull out; I think they were sufficient to pull the walls down when the floor settled. The chimney was first intended to rise only a few feet above the roof, like that of the Duck Mill, as it now is; but Mr. Putnam, whether because the number of boilers increased, or because he desired to have a high chimney from fancy, I know not, wanted to have it made higher; he asked me if I thought it would bear it; I told him yes; this was after the foundation of the chimney was laid, and some of it erected; should have made the foundation broader, and should not have made a high chimney in connection with the walls; all high chimneys are generally made disconnected from the walls; by the swaying of the chimney the wall was cracked; apprehended no danger from the crack; the chimney and its crack on one side are still standing; the chimney could not have settled to crack the walls, because we guarded against it in the foundation; don't remember that I stated to Mr. Putnam any fears that the walls would be cracked by building the chimney higher. When I first came to Lawrence it was fashionable to have iron pillars; don't think they were used much before; a plan was made for some under my direction, the Essex Company and Machine Shop then being one; they were made with a clasp to go round the beam, not with a pintle to go through it; the main object of iron pillars being to sustain the upper floors in case of fire; it was to be made certain by this clasp; so if beams should be taken out the whole structure would remain above, supported by the columns; never had or used any model with a pintle going through the beam in the Essex Company; all the other mills which I have built having iron pillars, have these clasps going round the beams. [Witness then read a letter from Mr. Putnam, asking the engineer's advice about pillars for the three lower stories; also read a letter from Mr. J. B. Francis to Mr. Putnam, saying that he should think it would be better to have the columns 6 inches in diameter and $\frac{3}{4}$ inch in thickness, instead of 7 inches diameter and $\frac{1}{2}$ inch thick, as in the Prescott Mill, of five stories. Also another letter from Mr. Putnam to witness, saying he would desire to have at least the lower two stories supported by iron pillars. He could get them done for $2\frac{1}{4}$ cents, but thought the Essex Company could get them at an expense of 2 cents per lb. Also read a letter from witness to Mr. Putnam, saying that the size spoken of was large enough, and giving the price of wooden pillars about half as much as iron; finally asking Mr. P. to decide which he would have. Also a letter from Mr. P. to witness in relation to the use of the pintle, asking for a plan for that part. Witness did not remember whether he sent a plan. Also read another letter from Mr. Putnam to witness, saying that he concluded to have wooden pillars, unless pillars of the following dimensions were thought to be large enough, i. e., floor $5\frac{3}{4}$ - $\frac{1}{2}$; second floor 5 - $\frac{1}{2}$;

third floor $4\frac{1}{2}$; 4th floor $4\frac{1}{2}$; fifth floor 3—solid. Mr. Bigelow then wrote him a letter, informing him that four inches was smaller than he had ever seen a pillar, and he could not vouch for their sufficiency; he advised to have $4\frac{1}{2}$ or 5 inch pillars put on the third floor; Mr. Putnam then wrote a letter to witness, saying he had contracted with Mr. Fuller to make the columns at an average price of \$8.50, changing the size of the above for the third story to $4\frac{3}{4}$ inches; he said Mr. Fuller was an honest man, and would make honest pillars; he afterwards received another letter from Mr. P. altering these dimensions, making them a little larger, as follows: those of the first story 6 inches in diameter and $\frac{3}{4}$ inch thick; second story, $5\frac{5}{8}$ inch diameter and $\frac{5}{8}$ inch thick; third story, $5\frac{1}{2}$ inch diameter and $\frac{5}{8}$ inch thick; fourth story, 4 inches in diameter and $\frac{1}{2}$ inch thick; fifth story, 3 inches in diameter and solid.] Received a letter from Mr. Putnam April, 1853, saying, "Mr. Fuller has the pillars done; he wants you to send somebody down to inspect them. He says they are first-rate pillars, but wants you to send down, so if any are rejected he can save the freight." We refused to send a man down to inspect them; they were to be delivered here; no one was sent there; it was merely a request on his part for his own private advantage; the original plan for using a pintle did not come from my suggestion, always having used a clasp; I received the suggestion from him, and made up my mind that they would bear up enough weight, vertical pressure, and so told him; the theory of the experiments found in the books, and the practice in other mills, both go to show that there was an ample margin of security in the dimensions of the pillars—the order being to render the margin enormous; have no doubt that they were bought in absolute good faith by Mr. Putnam; the only error I can see in his course was in buying them at so much apiece instead of so much a pound; never knew of any test for casting, except to examine them on the outside; the pillar broken was defective; never saw any so defective as some of these are. We gave the pillars an ordinary inspection, and received them in good faith; have no doubt but that they were examined as much as pillars ordinarily are; one circumstance points directly to these columns as the cause of this accident; walls and wooden structures give away slowly, and cast iron falls suddenly; and that was the way with this; wooden columns would show splinters and give warning; the mill was a model to experienced persons for its steadiness and the approach to perfection with which it run all the time it was in motion; a year or two after the mill was completed, I was in and out constantly to see how it went; the delicate bearings of the heavy shafting at the south end were always remarkably true; the overseers said so; especially was this true at the south end; here any settling would be found out beforehand, even slight settling, which would be considered of no consequence to the stability of the building; have often, after I handed it over, for a year or two run my eye along the walls, and they were always true to their original line; have always seen from Canal street that the end was perfectly straight and plumb.

Afternoon Session.

TESTIMONY OF GEORGE A. HIBBARD.

Have examined the pillars here; think the metal is very good; think it is not properly cast; the core used is what is called sand core, mixed with beat sand and meal; the core would be raised or "floated" if it was not secure in its place by chaplets; we are now casting some for a store in Boston, eleven inches in diameter, and three-quarters of an inch thick; think some of the imperfections might have been discovered by passing over them with a hammer; we had a machine for testing the

equality of pipes by weighing; never saw it used; it would tell imperfections very quick; never knew of any test applied to any pillars where I have worked; should think these columns were too light and thin; never have seen columns of this size used to sustain such a weight; we have been in the habit of making pillars 10 or 11 inches in diameter, and from $1\frac{1}{2}$ to $2\frac{1}{2}$ inches in thickness for the lower stories of buildings; the pillars in State Street block, running through the building, are 10 inches in diameter, and $2\frac{1}{2}$ inches thick.

TESTIMONY OF GEORGE W. SMITH.

My business, dealer in general wrought-iron works for stores, fronts, &c.; have had a good deal of experience erecting cast-iron pillars; never applied any tests; should think the iron in these pillars is as good as is ever put into pillars; don't think they could make so thin castings out of very poor iron; think the metal is a mixture of Scotch and American iron; have generally put them in the upper stories; the greatest length of span I have ever known in these buildings where I have put iron pillars has been ten or fifteen feet one way, and twenty or twenty-two feet the other way.

CAPT. BIGELOW RECALLED.

Since the morning session I have corrected my memory in regard to the bonding of the walls; the bonding between the window-jams were only four inches thick; some of the beams were four inches short, that would leave four or five inches on the wall; don't think the shortness of the timbers were anything against the stability of the walls; if I had, I should have rejected them; the walls were not made vaulted with regard to saving expense; it never entered my mind that too much weight was put on the floors, I had such confidence in the great excess of strength; should have preferred clasps, instead of pintles, between the columns; the difference in weight between the different kinds would be some two hundred pounds; have known spans frequently twenty-five or twenty-six feet; twenty-seven feet was rather long; the timber was excellent, and particular care was taken to make the floors rigid when they needed nothing in strength; the timbers were as strong as are ever put in such a building; the bricks were perhaps a quality rather inferior in regard to straightness and smoothness; am always particular to throw out soft bricks; always was careful to have the joints of the bricks completely filled with mortar; it was most carefully superintended; by a calculation made from the figures of the overseer, Mr. Winn, in regard to the weight of machinery on that part where the mill fell first, it was concluded that fifteen tons were put on a section of floor twenty-nine feet eight inches by fifty-two feet; don't think this was heavier than should be borne up; should not have hesitated to have placed that weight there myself; think the floors would sustain as much as if the crack was not in the wall; any settlement of the walls would have been indicated by breaking of the window caps and sills.

Q. Should you now have any hesitation in using such shoring as this for a building of the height, weight and character of this, knowing what you do?

A. I should not use pillars like them again; this is the lesson to be learned from this accident; cast iron must be more carefully inspected than it has been before; I should test them with the hammer, and make them larger, to give a larger margin of security; I should not use pintles but clasps, such as have been used in all other mills here where iron pillars are used.

Q. What, in your opinion, was the cause of this accident?

A. The bad manipulation in the casting of those pillars.

Evening Session.

TESTIMONY OF ELBRIDGE JOSLYN.

Am engaged in a foundry; was superintendent of the foundry here at Lawrence; before that was superintendent in Lowell; have examined these pillars; the iron seems to be good; the casting must have been done badly; have been in the habit of casting pillars; sometimes, in casting, pillars are slightly unequal—perhaps to the extent of one-sixteenth of an inch—but one so bad as this one exhibited we could have discovered and should have broken it up; always test the pillars by hammering them with a sledge; could tell a very thin place in a pillar by a peculiar appearance outside, which would always show until it was painted; all our pillars are tested; the pattern of the Atlantic pillar was a thicker pillar than these, and had a thicker cap; it had a clasp going around the beam instead of a pintle going through; the pillars used on the Atlantic were much stronger than these; we made some columns for the Bay State Mills, with pintles; they were stronger pintles than these; the flange was twice as thick as this.

TESTIMONY OF JOHN C. HOADLEY.

Have been employed seven years here as superintendent and agent in the Lawrence machine shop; have been a mechanical and civil engineer since the year 1835; the piece of iron before me is tolerably good; the great defect in the pillar is eccentricity of the core; three or four chaplets are usually set in a column to prevent sagging of the core; if the eccentricity of the core is great, one side cools very quickly, while the other side is still in a molten state; thus one side would contract one-eighth of an inch to a foot, and the other side not so much; this would bring the tension on the reverse side and be liable to break it; there is also danger of "cold chucks," as we call them, rendering them liable to snap; we have never applied any test, other than careful inspection of the exterior and strokes of the hammer; the difference of half an inch could be detected; the difficulty in the pillars before me is in the insecurity of the fastening of the core; have visited the ruins and seen three pillars, which, if properly tested, should have been rejected; should not willingly send out such pillars myself; the witness was struck with the lack of stability in the lines of the pillars in the buildings; having such a small base, they were very liable to be thrown out of line; if one column had fallen, it would seem as if all must go, as the floors were strong and tenacious, and the beams interlocked by the pintles; as soon as one column of pillars was thrown out of line, the others would be operated on as by a very powerful lever, and then forced down; if the plan for these pintles had been brought to me by a responsible engineer or architect, I should not have taken the trouble to calculate upon its stability; think that the cap of a pintle would become weakened by a heavy jar long continued; it would be analogous to the repeated blows of a hammer.

Sixth Day.—Morning Session.

TESTIMONY OF ISAAC FLETCHER.

Contracted to lay the foundation of the Pemberton Manufacturing Company's Mill; have been in the business about thirteen years; furnished and laid stones for the Pemberton Mill; considered the base good and the foundation well laid; I had the utmost confidence in the foundation; have seen nothing since to make me think the foundation was not good.

TESTIMONY OF EDWARD P. WHITNEY.

Was in the employ of the Pemberton Manufacturing Company at the time of the

accident; was in the fourth story, where I had been moving fly frames; I was sitting on the pulley of one of the frames, the south end of the second frame from the western tier of columns; first felt the frame settling; I was looking towards the south, and saw all south of me settling; thought the cards in the south view were settling a little in advance of those where I stood. We had not ceased moving the machines more than five minutes; heard no crack at all; should think it was not more than three seconds from the time I noticed the settling before all was down; think we had much more weight in that part than in any other part of the mill; where we set the fly frames a lot of cards were removed; should think the fly frames made a much greater weight to the square foot than the cards; made a remark at the dinner table that day that I didn't see what held the mill up; nothing but the great weight caused me to say so.

CHARLES H. BIGELOW, RECALLED.

Must have approved of the plan of the columns and pintles; believed that the columns, being ordinarily well cast, would sustain the weight required; should think the floor would have borne on the columns about three or four tons each; don't think more weight was put on the columns than they should have borne.

TESTIMONY OF SAMUEL GOULD.

Am a millwright; have been such not far from thirty years; was not employed in the construction of the Pemberton Mill, but went there when the second story was put up; I was to have charge of the yard when the mill was running, and I was to stay there and take notice of any thing that was going on wrong; was put there by Mr. Putnam; thought it did not look so substantial as many other mills I had seen; had no apprehension of danger; didn't remain until the mills went into operation; have heard persons say that they "went as near the wind" as they could in building it.

TESTIMONY OF B. F. CHADBURN.

Am a bricklayer; have been employed by the Pemberton Mill Company; have made nearly all of the repairs on the mill since the mill was completed; thought the mortar was not good enough; first thought so soon after the mill commenced running. When I made a hole through the wall for a bolt to run through, the mortar was brittle, and seemed to have too much sand in it; thought it looked as if it was taken out there; also made holes in other parts of the wall when irons were put in; found it difficult to drill a hole through, because the bricks were so loose they would push right through; the bricks had been laid there about two years.

TESTIMONY OF STEVENS DOCKHAM.

I sent these pillars and caps from the ruins; one in the entry was taken outside and stove up; the others came from within forty feet up to a hundred of the south end; there are hardly a dozen in the basement not yet exhibited, all of which came from the same neighborhood; one was found with the pintle pressed into it, which came out of the fourth timber from the south end; didn't find any defective pillars until Saturday; believe the foundation remains perfectly sound; have seen nothing besides the defective pillars to which I could attribute this accident.

TESTIMONY OF HENRY STUDLEY.

Was employed in the Pemberton Mill, in the fourth story, about twenty feet from the east wall, and from seventy-five to one hundred feet from the south end; I was at the fly frame nearest the wall, facing Mr. Winn; I was talking with him, and he exclaimed, "What is that?" I looked around, and saw the floor settling towards the south-east cor-

ner; saw the cards then go down, and the floor above it follow it; should think the floor commenced to fall near the south-east corner; should think the easterly side was the lowest; Mr. Glover said he thought he saw the pillar spring, and after that we moved the machines by boring a hole in the floor; on the day of the accident we had to move the next to the last machine further than the others, to allow of getting in the last; a man was about to bore another hole; I said to him, "Don't bore another hole there, let us move it with bars;" Mr. Winn said we could take a sling around the foot of a pillar and draw it the short distance; it was done, and we moved the machine two or three feet by that means. Never had an idea that the mill was unsafe; have been engaged as a millwright for seven years.

Afternoon Session.

THOMAS P. WINN, RECALLED.

Had no recollection of directing Mr. Studley to put the tackle around the foot of the pillar to move one of the machines, on the day of the accident; might have given my consent to it; should have had no hesitation to do so; I only objected to putting it around the pillar before because it was put up so high on the pillar.

TESTIMONY OF JULIA HARTIGAN.

Was employed in the spinning-room, but was in the spool-room, at the time of the accident, in the fifth story; I was near the centre of the spooling-room, which was in the south end; I was engaged in a deep conversation with another girl, and the first thing I noticed the floor went down and we went with it; seized hold of each other; when that floor went down to the next we felt a short halt and a sort of a shake, and so on through the floors.

TESTIMONY OF GEORGE HOWE, OWNER.

Reside in Boston; was interested in this mill; the property of the Pemberton Mills was offered first at private sale; not being sold, it was offered at auction; a general schedule was given of the property—in it the number of spindles and number of looms; a number of gentlemen, of whom I was one, associated together for the purchase of the establishment; we agreed before the sale that we would bid the sum of \$300,000; at the sale Mr. Nevins and myself were inclined to give more; the others were not, and gave us to understand they should stop at that point; we held an argument with them to induce them to go beyond; we endeavored to persuade them to go to \$325,000; Mr. R. C. Hooper was one of the gentlemen, Mr. Nichols (Nichols, Pierce, & Co.) another who declined going beyond; Mr. Hooper was to bid on the property; he arrived at the point agreed, beyond which he would not go; Mr. Nevins persuaded him to continue to \$310,000; at that point he stopped and refused to go any further; another bid was made, and then Mr. Nevins came to me and asked if I would join him equally in obtaining the building; at that point, I think, Mr. Amos A. Lawrence I discovered was bidding against us; believe he was bidding in behalf of gentlemen supposed to be familiar with the property; didn't suppose him to be a by-bidder, and never have thought so; Mr. Lawrence I know made the last bid but one; think it was within \$250 of the final bid; Mr. Nevins came to me and asked me if he should bid again; I answered yes; he asked me how much; I told him I would indicate to him when he should stop; he did bid again, and the property was struck down to Mr. Nevins at \$325,000; Mr. Edward T. Rand was employed by us for the examination of the title, and it had his approval; we then applied to the Legislature for a charter; the bill, with the least possible delay, passed the House, and then the Senate, and it had at once the approval of the governor; the great

inducement they had for such summary action was found in the representation of the representatives of Lawrence, that a number of operatives were here in a state of suffering in consequence of being thrown out of employ, by the stoppage of the mills; the purchase was on the 8th of February, and early in March the mill commenced operation; I undertook to act as the treasurer, and Mr. Nevins as the selling agent; it devolved on me to make an arrangement for an agent; Mr. Chase the previous agent had been recommended to me by Dr. Hobbs, of Waltham, former agent, and now agent of the Waltham Company; he came to my office and wished me to consider Mr. Chase as an applicant, recommending him in unqualified terms; he had his education from his youth up in charge, first at school and then in the various departments; had previously recommended four other parties, in whom I equally had confidence; at once I made an arrangement with him; he named his salary, it was \$2500 a year, and I immediately closed with him; he was authorized to go forward and engage all the overseers at his discretion, and pay them whatever he thought proper; manufacturing business was then uncommonly depressed; the Pemberton Mills had an accumulation of stock unsold. (This was the other corporation. We changed the name and called it Pemberton Manufacturing Company.) The stock amounted to several hundred thousand dollars; at the outset we didn't expect Mr. Chase would pay so much for wages as if the business was better, and he didn't; we began selling the goods very cheap, and the prices afterwards advanced, and as they advanced we allowed Mr. Chase to advance the wages, until they were advanced, I should say, in the neighborhood of twenty per cent; the business went on increasing; I made it a point almost without an exception to visit the mill once a week, and go through every floor; Mr. Chase accompanied me; not more than once or twice, for nearly two years, did I find Mr. Chase absent; he never knew when I was going to visit the mill, and I had the greatest reason to believe in his ability and faithfulness; Mr. Nevins, living in Methuen, and attending to the styles of the goods, visited it much oftener than I did; he generally informed me when he did visit the mill, stating that he had visited it all through; Mr. Chase never knew to my knowledge at what time Mr. Nevins was to visit the mill; I found Mr. Chase extremely intelligent; I thought I knew much of manufacturing, but I found he knew much more than I did; we went on until the day of the disaster; it so happened that on that day Mr. Nevins had visited the mill, as he represented to me in the morning; on his return to Boston he reported to me that he had never been better satisfied with the operation of the mill than on that day; I came down by the afternoon train, half-past two o'clock; having then but a short time to stay, I went in company with Mr. Chase directly to the mill, as was my custom to do; we had passed through the weaving-room and the principal carding-room, the lower one; from there we went to the third story, spinning-room; we entered at the north end, and as we passed the mules, I remarked to Mr. Chase that I thought that they were running remarkably well; we had reached the last pair of mules, and I simply said, without meaning much, "This pair of mules seems not to be working so well;" he had a good reason to give for it; they were employed on slacker twisted yarn; while he was making his explanation we stopped about fifteen seconds; had it not been for this suggestion and this halt in our passage through the room, we should have been directly under the point where the floor first began to sink; we heard a noise and I think simultaneously the mules stopped; Mr. Chase exclaimed, "What is that?" and I think I made the same exclamation; in looking in the direction from which the noise came, towards the southerly end, about midway of the passage, in the westerly alley, we discovered at once the columns were falling towards ourselves; the beams were sinking; we then turned round to make an escape; I deemed it extremely doubtful whether we should get out; but we fortunately did.

Q. What part of the mill did the noise come from ?

A. It came from the south end ; the noise sounded very much like snow sliding from the roof ; the pillars in the centre seemed to be going first ; the ceiling was coming down ; did not feel the floor inclining upwards ; we ran half the length of the mill ; the falling gained on us behind ; think the timbers from above came near striking us ; a large number escaped through the door which I did ; it could not have been two seconds after we passed the threshold before the mill was a mass of ruins ; I stated the price at which this mill sold ; I should state in connection with that, that at that time factory shares were selling, many of them, much below the rate at which we purchased this mill ; we paid this price for this factory for the advantage on the one hand, of having more exclusive control of it, and on the other for its high reputation ; at the time we purchased the mill, its reputation was high ; before it was sold, the company got Messrs. Isaac Hinekley and William A. Burke to come here and make an estimate of its value ; they did so ; they were requested to report also what it would cost to build a duplicate mill, and they reported (in round numbers) that the stationary property would cost something over \$200,000 ; the movable property, such as machinery and fixtures, and motive power would cost \$427,000 ; together it amounted to something over \$640,000 ; the land and water power was not included, because the price had varied ; I had the greatest confidence in the judgment of Mr. Burke, for he had been for many years at the head of the machine shop of the Amoskeag Company, in which I had been from its commencement, a director ; Mr. Hinekley stood as highly as Mr. Burke, as his name was first appended to the statement ; by referring to the quotations at that time, it can be seen that factory stock was selling for about a third price ; when we had our charter, one-half of the shares was taken by Mr. Nevins ; I gave twenty shares to Mr. Samuel W. Swett, President of the National Insurance Company, twenty to one of my sons, and ten to another, and I had the rest myself— 250 shares ; the property was divided into six hundred shares ; it was insured for over \$400,000 ; it covered all the buildings, and all the stocking process, and all machinery ; I think the insurance on the machinery was for \$200,000, on the buildings about \$80,000, on the cotton stock \$50,000, on the stock in process over \$30,000 ; most emphatically I can say that never the first word was said to me against the stability of the building ; I have heard since the accident, that some people had made remarks ; but no such remark ever came to me from the agent, or anybody else ; it was considered the model mill, and was insured for the lowest premium ; Mr. Mather, who acts for the Manufacturers' Insurance Company of Boston, was so well acquainted with the property that he required no representation from us ; he had \$40,000 on it ; no one ever said a word to me against the perfect security of the mill ; never heard a word about the broken pintle which has been testified to ; never knew that I was part owner of extra caps to strengthen the flanges of the pintles ; had no knowledge of the character of the walls any further than this ; there are unerring indications of the stability of walls ; a building having granite caps and sills must show any settling by breaking these ; never knew any cracking of any caps or sills ; it was the remark of Mr. Chase that the walls had stood so perfectly that not one sill or cap had been cracked ; the remark was made when we were discussing the question of filling up the upper carding-room, which was not fully occupied ; we were wanting more weaving, and I asked Mr. Chase if he thought it would be safe to fill it up : he said that he thought the building was strong enough, inasmuch as the walls had never settled ; I afterwards concluded not to run the risk ; never made any change in the machinery except in the lower story ; we took out six jacquard looms, very heavy, and substituted common looms ; the third story was occupied by mules and spinning frames ; the mules were placed at right angles of the building from one end to the other, leaving a passage

way; they had a bearing the whole length of the room, on eastors; the action of the motion on the building was very little, the tendency of the works being rather to add stability to the building; the ring spinning was such that one could hardly know they were in motion if they were not looking at them; the motion would not occasion the slightest action on the building; the fourth floor was occupied by another set of mules, acting the same way as the mules below, running the same way, and of the same construction; at the other end of the fourth story were placed three cards, stoffers and fly frames, occupying about half the surface altogether; a portion of this floor was partitioned off and occupied as the drawing-in-room, where there is no motion to act on the building; we had a less quantity of stock in the mill than has been usual; in the fourth story, we were arranging the cards — not increasing, but giving them a different combination; by this we were to make a space to be occupied by a pair of mules to be moved from the floor below; they had not been moved; nothing had been put in it, but a lapper of great weight had been removed, a heavy coiler had also been removed, and a railroad of no great weight placed there, so the weight had been largely diminished on that floor; my ideas of the stability of the mill were increased by noticing the best system of iron girding inside I ever saw in a mill; as proof of it, I may say that I was never on the floor of a factory that had such stability as that one did; I make no exception; in regard to the walls, I think their stability depends more upon the beams inside than the walls themselves; I think if walls are connected by timbers, trussed with iron and anchored at each end in the walls, and if the floor is perfectly supported, a wall will be kept secure from falling outward, and it is impossible it should fall inward; if the floors were taken out, a strong wind would be likely to blow the walls over; since I have been associated in the interest of the mill there has been nothing added to it nor taken from it to affect its stability; the crack about the chimney I never heard the first word about; never knew of any crack about the building; I judged of the building by its parentage; Messrs. Putnam and Lowell never have been known to slight any thing for the sake of saving money; money was of little consequence to them compared with stability; I had never known an iron column to give way when the weight is kept vertical.

Evening Session.

TESTIMONY OF IRA TRUE.

I am a carpenter; have been employed on Pemberton Corporation since the second floor was put on; was in the repair shop at the time of the fall; in attending to repairs I have been called to level shafting when it was between the pillars; the upper card-room required the most attention: have been called there seven or eight times lately; the levelling was done mostly on Sunday; a settling of three-eighths of an inch would cause heat; the shafting adjusted in the card-room was towards the left wall; in one or two places have been called a number of times to adjust the same portion of shafting; in some cases we deferred the levelling until the next week; some on the south end were adjusted twice; the shafting was not much affected by heat; have been employed in mills at Newburyport; the settling was caused by springing of timbers, what carpenters call "sagging;" some of the timbers of the flooring of the fifth story sagged perhaps five inches; Messrs. Studley & Whitney assisted in the levelling up; considered the sagging a sign of weakness; I reported the fact to one of the men who worked with me, and adapted the shafting to the beams; Mr. Glover had the hiring of the hands, but I did not report the fact of the sagging to him; it was noticed more particularly a fortnight ago; the beams all sagged, more or less; they were double timbers, running east and

west; the shafting we adjusted run from north to south; we put bearings or hangers at the extreme south end; can't tell what sagging there was there; detected the greatest sag near the south end, perhaps the fourth beam, near the centre; I applied no other test than sighting; the shafting needed to be adjusted with great nicety; started our bearings at the south end; we generally found the lowest point, and started our shafting there; levelling up became necessary; have discovered settling in the weave-room and levelled up; it was not in the same portion of the mill; the dressers in the fifth story stood lengthway of the beams; three occupied the width of the mill, one between each beam; there was an alley running through the centre of the room; from my observation, the sagging of the fourth story was caused by the floor above; the settling of the middle portion of the building caused the sagging; I never saw any thing about the mill indicating danger, but considered it safe; never helped to level up the dressers; if there had been a settling of two inches of the floor in the fifth story, the dressers, I think, could not have run; if there was any one timber in its original state and in a perfect line, I think there would have been three inches' difference caused by the sagging; was directed to go into the building to level the shafting by Mr. Glover, generally; in the last-mentioned case, Mr. Studley directed me; we put up the new line of the shafting about four feet from the old; the shafting put up was old; think it was taken from near the middle.

MORRIS KNOWLES, RECALLED.

In the year 1853, the last of March or first of April, Captain Bigelow sent for me to come to his office and gave me the dimensions of the mill, and asked me to make an estimate for what I would build it, I finding certain parts of the lumber, the Essex Company the rest; I made the estimate and took the contract; as I was busy I went to Lowell and got Mr. Dodge, and he attended to the details of the work afterwards; I frequently visited the work; while masons were carrying up one-half of the mill, we were preparing timbers to put on to that half; we found that our timbers were some four inches too short on each end; our custom was and always has been to lay the timbers eight inches certain over the wall; think I went to Captain Bigelow about it; it was always my custom to do so; the anchor irons were ordered of the same length, and were prepared at the same time; they were carried out when the timbers were too short, by fastening them nearer the ends of the timbers; in the shortest timbers the fastenings would be eleven inches from the end; think that sufficient for all practical purposes; considered the short timbers perfectly safe, and the shortest ones had four inches bearing on the main wall; after seeing Captain Bigelow, we made arrangements to have projections built out; our beams don't come always of the same depth, and we level them on the top because we don't want to take them all down to the size of the smallest; to level them thus, we put under pieces of hard pine board, varying in thickness, according as the timbers varied; those boards were laid so as to bear on the whole of the main wall and about two inches on the projection; recollect some of the planks were found to be wormy and they were taken out; don't recollect that any main timbers were found defective; the first floor was composed of three-inch plank, and inch and a half hard pine board; the spikes used in the planks were tenpenny; two were put in narrow planks and three in the wide; between every bearing there were three dowels seven-eighths of an inch in diameter; over the second and third floors were inch and a quarter hard pine boards, laid diagonally, and sheathed below with white boards an inch and a quarter in the rough, nailed once in every eight inches; the floors above were made with the same timber, not laid diagonally; in laying these large timbers should expect the bottom of the timbers would vary in the centre between the bear-

ings; sometimes they vary an inch; they might vary an inch in this mill; sometimes the ends will vary, and then my custom has been, when we make a joint, to select those nearest of a thickness, and then plane the largest down, I think we never put pieces of board on the pintle caps to compensate for the difference of thickness in making the joint; we used to have pieces of wrought iron to lay on the cap of the pintle; should think these irons did away with the advantage of the groove in the base of the pintle; should expect some sagging in the timbers in the course of six years; the effect of heat would cause an increase in the inequality of the lower surface of the timbers warped; some timbers are more cross-grained than others, and would warp more; the fact that the floor of the fifth story had settled three inches would have surprised me; should not have expected that this floor would sag so much with the weight it was calculated to bear; should not have expected more than an inch or an inch and a quarter; to look at a sagging timber one would think that the sag was greater than it would prove by actual measurement; on last Thursday and Friday I went to the ruins and examined the main gear and the counter gear; examined the wall exposed; was not able to see any indication of settling; think I saw a crack in the window sill at the south end, below the floor; last Tuesday went to the ruins with Mr. Francis, of Lowell, and he expressed himself perfectly satisfied that the foundation had not settled; don't know as Mr. Francis saw the crack in the window sill; supposed it was caused by the strain of the fall; in the mean time, examined and overhauled the pillars; found a defective one exhibited about a hundred feet from the southerly end; I thought before that if I saw a pintle broken like this, it would be great evidence; am perfectly satisfied in my own mind, knowing the rigidity of the floors and the manner in which they were constructed, that if one of the flanges should break, the whole structure would fall; if the flange should break, the wood around the pintle might not come close to it, and the hollow pillar might drop down five or six inches; that would break the pillar, and the others would be thrown out by the inclination of the pressure; if the walls had been four feet thick they would have come down by the pressure of the roof, which was not self-supporting; a self-supporting roof would make the walls much stronger.

Seventh Day.—Morning Session.

GEORGE HOWE, RECALLED.

I would remark in regard to my confidence in the wall, I should just as soon thought of asking whether Mr. Ebenezer Francis' note was good for half a million dollars, if he were living, as I should have thought, knowing its history, of asking the opinion of any one in regard to this building. Knowing the gentlemen connected with its construction, I should have supposed the inquiry in any case would have excited great mirthfulness.

TESTIMONY OF E. B. HERRICK.

Reside in Lawrence; am employed in the Washington Corporation; have charge of the yard, and watch; at the time of the accident I was standing in the Washington Corporation yard, looking towards the Pemberton Mill, talking with Mr. Piersons, Street Commissioner; my impression was first that there was a snow slide, by the noise; didn't know but what it was a coal pile; it seemed to come from the direction of the Pemberton Mill; I could see the north end and could not see the south end; in a few seconds the part of the building I could see fell; should think it fell mostly towards the Washington

Mills; saw no bulging of the walls; heard no explosion before the fall; expected to have fire to contend with; saw lights in the ruins; went to the end next to the Pemberton to look out for it; got hose out then ready for fire; have never noticed any weakness about the building; have never made any examination before the fall or after; couldn't have told what kind of pillars were in the building; never saw the mortar while it was making; think I have heard Mr. Hodgman say he didn't think the flange of the pintle was strong enough; heard there was one broken, and that he repaired it, and think that he said they should be altered, and that some preparation was made to remedy the weakness; didn't know what it was.

TESTIMONY OF GAMALIEL GLEASON.

Am a mason; have been a mason thirty-four years; took a contract under Capt. Bigelow on the Pacific; employed under him on the Pemberton and Atlantic; Capt. Bigelow always cautioned me to do my work strong, and if it was not done strong I had to have it re-laid; did thus sometimes re-lay work; he required thorough work as much as any man I ever worked under; I put in fire escapes and drilled holes for ladders; I drilled some of the holes through the walls; might have helped drill twenty or thirty; didn't see any indications of weakness or deficiency in the wall; think the mortar was not very strong; think it was partly in the lime; it was Vermont lime, which is not so good as Thomaston; believe it is not so strong; saw no indication of the mortar being weakened by too large a proportion of sand; thought the mortar separated from the bricks more than usual here; suppose it was caused by the bricks being dry when they were laid; when bricks are light we usually wet them; these were bricks of about medium hardness; we used Vermont lime on the Pacific; at that time it was used most altogether here; think the walls were not thick enough for such a load as was put into that mill; never saw a mill loaded as this was; believe the whole work on the building was done well, though I thought it was too light.

Afternoon Session.

TESTIMONY OF JAMES A. FOGG.

Am a wheelwright; was employed for a short time by the Pemberton Mill Company; was there under Mr. Hodgman; was there to set up machinery and level it up, as it first came to the mill; never was called to work there at any other time; noticed a sagging of the timbers between the bearings; noticed it most particularly in the card-room; sometimes had to level up the machines an inch; when we set them the levelling varied from one-half an inch to an inch and a half; think there was greater sagging between the walls and the pillars than between the two rows of pillars; the machinery was on the floor when I went there; I worked on the section at the south end; did not take any notice of it until I went to work levelling up; then found it had sagged a good deal — more than in other mills where I have worked levelling up machinery; I ascribed the sagging to the length of the span; never saw any sign of any timber giving out, but thought they were not large enough; in the fifth story levelled up a dressing machine about an inch; don't recollect of ever seeing a machine set on a floor without more or less levelling; only worked on the west side of the south end of the fifth story; didn't notice whether there was any sag on the east side; in the second story the sagging extended as far as I worked — from the south end to the centre; the lowest place was in the centre between the bearings.

J. P. PUTNAM, RECALLED.

Since I testified before, I have found a draft of the columns and pintles among the plans of boarding-houses; it was sent me by Capt. Bigelow. [Witness then read a letter, from Mr. Francis to witness, advising that it would be better to have the pillars six inches in diameter and three-quarters of an inch thick, declaring that that would allow a large margin of security; also a letter in answer to the above, transmitted from Capt. Bigelow to witness, saying that he thought the dimensions were large, and asking witness to choose between wood and iron; also a letter, from Capt. Bigelow to witness, saying he could not vouch for four-inch pillars, and giving some remarks in detail; also a letter, from same to same, asking to have the iron caps for pillars forwarded.] The plan before me was the one I received from Capt. Bigelow; think the idea of employing the pintles with the pillars grew out of a conversation between Capt. Bigelow and myself, something to the following effect: Capt. Bigelow thought of using wooden pillars, and I thought iron ones would be stronger, when Capt. Bigelow said that columns without connection would not be safe in a case of fire; the founder might have suggested pintles to me, and I might have referred it to Capt. Bigelow, or the latter might have suggested it to me; never knew of the connection between columns, by means of a clasp, until Mr. Coolidge testified the other day; don't think I ever estimated the difference between the weight of the columns which the Lawrence Company would make and those made by Mr. Woods; made the contract for the columns with Mr. Fuller; never had any dealings with Mr. Woods, who owned the foundry; since my memory has been refreshed, I recollect something of ordering a set of extra caps for the pintles when the cap of one was broken; think we only ordered enough for one floor; they were not used; don't recollect of giving orders to have their manufacture discontinued; the extra weight mentioned in the bill was because the pillars first made for the second story were considered too light and were used for the third story, and heavier ones placed in the second story; don't recollect about giving notice to Capt. Bigelow that Mr. Woods had notified me that the pillars were ready to be tested; didn't know how columns were tested, but supposed that the usual means employed by engineers would be employed; no one ever spoke to me about the building being too slightly built; I had confidence in the opinion of Capt. Bigelow in regard to the pillars; didn't feel myself responsible for the engineering, but when I saw any thing where I thought something could be done to make it stronger, I usually suggested it; there was some uneasiness felt among the directors as to the foundation, but, after a conversation with Capt. Bigelow, I felt perfectly satisfied about the foundation; think we did not consider the breaking of the pintle of much importance; the directors felt some uneasiness about a small stream of water seen under the foundation; I did not know but we ought to drive piles; the directors came and looked at it, but it was afterwards considered unnecessary.

JESSE GLOVER, RECALLED.

I was superintendent of the repairs for the Pemberton Company, from three years ago last March until the disaster; Ira True was there eighteen months; don't think I have given any orders to him or to anybody else to level any shafting in that mill since the mill has been run by the company which owned it last; some shafting was moved in the fourth story within the last four weeks, about two feet from the former line; this shafting was attached to the upper beams, and the beams were in good condition; the main shafting never has been levelled since I have been there; commenced to do it, but found them so near right that it was unnecessary; since that the shafting has run better than I ever saw any in any other mill; it was my duty to go through the mill

and examine it; every thing needing repairs, or unusual in the running of the machinery, was reported to me; feel confident that when we moved that shafting there was not two inches' sag in the floor between the bearings on the wall and those on the columns; Mr. Craig said he never saw the shafting run better than on that day; it would not be probable that all the beams, from north to south, would sag alike; if they sagged to any extent unequally, the shafting would have to be levelled; never knew any shafting to be levelled up the second time; never knew of any defect which I desired to keep from anybody; have levelled up the mules, which is always done in all mills where I have been; in the card-room I levelled a line of shafting which ran in the centre of the beams, and commenced to do more of the same; saw the testimony of Mr. True; have no doubt that my testimony about the settling of the floor is correct; if it had settled three inches, a person walking could have seen it; I have examined the boilers at the south-west corner; they are uninjured, except where the wall fell on them and broke off some pipes; there could not have been an explosion; the main gas pipe was in the north-east corner; there was a main pipe running from the basement to each floor; on the third story the weight was about equal the whole width of the room; in the fourth story, the greatest weight was on the west side; should think the southern half of the carding-room was loaded heavier than the northern half; don't know of any great difference in different portions of the southern half; should think the fly frames might come up to two tons; I was present when part of them were moved, the last four I did not see moved; left Mr. Studley in charge of the moving; the first one we moved by hitching to a post; that was two weeks before the calamity; the post (pillar) seemed to spring a little, and we didn't do so again; in moving that frame we fastened to two pillars; we didn't apprehend any danger to the mill, but I thought if we broke a pillar it would give us trouble by the settling of the floor above; think I have frequently seen tackle hitched around the post; have been on the top of the building frequently.

Evening Session.

ELBRIDGE JOSLYN, RECALLED.

The diameter and thickness of the pillars now in the Atlantic Mills are as follows: They are all six inches in diameter at the base, slightly tapering; first story, 3-4 inch thick; second story, 5-8 inch thick; third story, 9-16 inch thick; fourth story, 1-2 inch thick; these pillars were made by the pound, according to these dimensions; clasps were used instead of pintles; think the large pillars in the basement of No. 3, are solid; they had a receiving book which told the weight of every piece; the pillars where the large iron girders go, were solid.

TESTIMONY OF SAMUEL CUMMINGS.

Am a millwright, and reside in Lawrence; employed at the Washington Corporation; have been the most of the time for the last twelve years; was sent to the Pemberton the next spring after it commenced operations to make some repairs and move machinery; was employed to level shafting in the basement of the building some time in that spring; levelled across the counter-shafting from east to west; found the shafting in some places considerably out of level; worked there levelling only one day; the greatest extent of levelling was an inch and three-quarters; when the hangers were put on the floor between the beams, the largest extent where the hangers were on the cross-timbers was about seven-eighths of an inch; two of us levelled about the hangers that day; think that so much of a sag would not heat the shafting so that it could not run; saw some indications of heating in the boxes; the sag was greater in some places than

in others; the greatest settling was in the south-east corner of the mill; when moving frames in the fifth story, I noticed a good deal of trembling, more than in the Washington; felt it so much that I told my folks I didn't feel safe to work there; we slid the machinery on the floor with bars; the machines were spoolers, weighing from twelve hundred to fifteen hundred; Mr. Hodgman sent me there; think I told him I did not feel safe there; thought the motion caused by the machinery here was greater than in the Washington or Atlantic; this was after the trusses were put in; supposed the trembling in the fifth story was of the floor and timbers, and not of the walls or support.

TESTIMONY OF JOHN WARD.

Was in the dye-room, second story, south side, at the time of the accident; was between the wall and pillars, perhaps thirty feet from the southerly end; was oiling the machinery that day; was looking towards the south end at the time of the fall; thought the gas was going out; saw the shafting and ceiling give way; was knocked down, and it was two or three minutes before I got out; the fall occurred two or three seconds after the tremor of the gas; the shafting fell at once—some forty feet of it; one floor fell after another; the centre of the mill went first; parts of the walls tumbled in and other parts out; know of no jar or shock to the pillars in our room; heard a rumbling sound overhead; felt no jar or jostle, previous to the accident.

TESTIMONY OF SIMON CRAIG.

Was employed at the mill; ran the wheel days, and watched nights; was in the weave-room, at the time of the accident, oiling machinery; heard a crash; looked, and saw the flooring coming down; it might have been thirty seconds from the time of the crash to the fall; what fell seemed to be the westerly row of pillars; commenced thirty or forty feet from the southerly end; did not notice the fall of the easterly end; the floor beneath me was firm; the machinery had been running well; the gearing had not been disturbed; noticed no indications of heat when oiling the machinery.

Eighth Day.—Morning Session.

CHARLES H. BIGELOW, RECALLED.

[The attention of witnesses was called to a plan of the columns and pintles brought by Mr. Putnam.] This plan, and the letters I have read, show my agency in regard to these columns and pintles, the first idea being to use wooden columns. I furnished a plan to Mr. Putnam, which was an exact transcript of this, as far as it goes; this is my plan; the form and dimensions of the pintles, as made, differ entirely from this plan; the top was not cast in connection; this was not a working-plan, but was simply to show the vertical dimensions; the cap represented on the plan was an inch and a quarter, and it is cast only an inch and a sixteenth; this was simply to represent the length of the columns, and any horizontal dimensions were only put in the plan accidentally, as these dimensions had been agreed upon before; Mr. Putnam wrote to me and asked what size we should have these pillars; I made the calculations for the dimensions of the columns, saying nothing about the pintles; he also gets other advice, makes up his mind what size he will have, and orders them from a foundry; I know nothing more about them until they are delivered to me to put into the mill; I did not feel called upon to make a new calculation on the pintles; I had calculated on the columns, and had confidence in them, and I have now, if they had been well cast; know the suggestion in regard to the pintles came from Mr. Putnam, for the special reason that just

prior to this I built the Duck Mill ; it was built at a round cost, and although it was my duty to save unnecessary expense, I used the columns and clasps I have always used, without any question ; in reference to the Duck Mill, though we built it for a round sum, we spent ten thousand dollars more than we thought we should when we made the contract ; about these columns (showing one of the broken pieces) that capital shows that the thickness was not adhered to in the castings : (showing another piece) that is a fair specimen of the lower-story pillars, and it would take much over a hundred tons' pressure to crush it, if it were properly cast ; if the columns had been as good as that piece, the jolt of a breaking pintle could not have affected the pillar in the least ; the object of the pintle was to connect the columns and prevent the upper floors from falling down in case of fire ; but the theory on which they are constructed is wrong, and I never could have used them of my own will ; when Mr. Putnam sent to us that the pillars were ready to be examined, he didn't send for us to *test* them ; they were examined after they came here just as they would have been if we had sent a man to the foundry for the purpose ; I never bought any pillars by the piece, but I always bought them by the pound ; in regard to the mortar, I am satisfied that no fair examination can be had of that at the ruins, except by taking some in the wall which has not fallen down ; the action of fire, frost, and water has had such an effect on the mortar exposed to it, that it cannot be properly examined ; from the examinations thus made it is not fair to condemn the Vermont lime, which is as good-looking lime as can be found in the world ; the mortar was superintended by Mr. Coolidge, who has a large experience in such matters.

TESTIMONY OF H. D. CLEMENT.

Have been fifteen years a contractor ; have visited the ruins since the disaster ; have examined the foundation, and am satisfied it is all good ; a settling of a quarter of an inch would cause it ; it was no more than four or five feet from the chimney, and might have been caused by its weight ; found several defective columns ; have been in the habit of building large mills ; never noticed so large a building, which had been built that length of time, without showing indications of more settling ; saw nothing to make me believe that the foundation was not of the first order ; found the brick pier in the basement in good condition, and the iron caps on them entire ; saw no indications of the outer casing of brick having given away ; of a few of them the corners were gone, but, on inquiry, I learned that it was done since the fall ; found one pillar broken in the middle, which was less than an eighth of an inch thick on one side, and more than an inch and a quarter thick on the other side ; it was one of the pillars five and five-eighths inches in diameter ; examined the mortar ; it now appears rather crumbling, and not so strong as I have seen ; don't know what effect fire, water, and frost have had on it ; should not expect to find mortar as this is now ; saw some ten or twelve pillars defective ; but only one with a defect appearing on the outside ; a man saw a pillar that didn't look just right on the outside, and struck it with his heel and made a hole through it ; saw no pintles remaining in the timber ; saw no pillars remaining upright ; think the gearing stands very well.

TESTIMONY OF THOMAS DOLLIVER.

Have examined the foundations since the fall of the building ; saw nothing to give me reason to doubt the thoroughness of the work ; saw several bad pillars ; found the one exhibited north of the centre ; I broke a good many and found blow-holes ; saw none that could have been detected by their outside appearance ; found them nearly all broken ; when the pillars were brought here from Boston, I helped carry them in ; think we broke one ; don't recollect whether it was defective ; after that I cautioned

the men to be careful in handling them — not because I thought they were poor pillars, however; at the ruins we found many pillars that we broke of unequal thickness.

Ninth Day.—Morning Session.

JOHN CHASE, RECALLED.

Since I testified before, the safe has been opened; the floor plans were not saved in the safe; should judge that the weight on the second story, including machinery and stock in process, would have amounted to from two hundred and fifty to two hundred and seventy-five tons; on the third story about one hundred and twenty-five tons; on the fourth about one hundred tons; on the fifth story fifty or seventy-five tons; this is the result of an estimate I have made since the disaster; about three years ago considerable weight of machinery was removed from the fourth story; on the third floor the greatest part of the weight was on the southern end; called the weight of the cards a ton each, and the fly frames two tons each; I gave directions to have the fly frames moved; I had noticed that the floor of the fifth story, which was not trussed, had settled about two inches; I had noticed some places in the floor where the sag was greater on account of the piling up of yarn, and had the overseers take it away; had no apprehensions of danger; there could not have been a settling of five inches.

[Messrs. John B. Tuttle, Gilman Tuttle, Levi Sprague, and Gamaliel Gleason, masons, testified to their belief that the mortar was good, though all agreed that it was probably not very strong, being made of Vermont lime.]

Afternoon Session.

LEVI SPRAGUE, CALLED.

Reside in Lowell; am a mason, and have been so thirty-two years; have worked on several mills; have examined the mortar of this building, and think it is good; was not surprised to see the bricks broken apart, considering the height from which they fell; think the mortar could not have been better made with Vermont lime.

HENRY STUDLEY, RECALLED.

We re-adjusted lines of shafting on the fourth floor soon after the 1st of January; Mr. True assisted me; moved them from thirteen to twenty inches toward the centre of the mill; in taking down the shafting we found some pieces of wood which had been put in to level it when it was set up; the pieces of wood were from three-eighths to five-eighths of an inch in thickness; think some were over the last; the shafting had been in that position for three years previous; had there been a three-inch sag in the southerly end, think I should have perceived it; in the ruins we found pieces of timber ranging a quarter of an inch in thickness; never knew levelling up to be done on a Sunday, when it could be done without stopping the machinery; have done no work Sundays for four months; know of no levelling up of machinery for two years.

JESSE GLOVER, RECALLED.

For two years have not known any machinery to be levelled, except such as was moved; I don't believe the floor could have settled half an inch since the shafting was put up on the fourth floor.

GILMAN TUTTLE, RECALLED.

Think Mr. Putnam was informed of an apprehension of danger on account of the thinness of these walls; I went to Boston in company with my brother; we went to see Mr. Putnam about the bricks; we told him that we thought the walls very thin for such a structure, and we thought that nothing but good bricks should be used; he said he

would see Capt. Bigelow about it ; the bricks were rough, but were hard enough ; the light ones were thrown out by direction of Capt. Bigelow.

CAPT. BIGELOW, RECALLED.

[Witness described a pattern before the jury for the "clasp," which has been noticed as the means used in most of the mills to connect iron columns ; the clasp is a heavy iron U, with a cap in which the beams rest, the clasp standing upon the top of one pillar, while the pillar above sits on its heavy cap ; with this contrivance, if the beams should be taken out, or burned out, the floor above would remain, secured by the broad bearing, where a pintle might topple over.] Pintles have been used in many other buildings, but I never used any in any mill except the Pemberton ; I believe Mr. Putnam acted in good faith, and I am responsible for adopting his suggestion ; I do not believe, however, that the system of pintles caused this disaster ; I find a column here which does not begin to average a thickness which it should ; with such a column as this before me, I only wonder that the building stood as long as it did ; I gave express instructions to Mr. Coolidge about superintending the construction of the foundation and the laying of bricks.

Q. When such careful supervision was exercised over the construction of the foundation and the walls, how was it that that supervision was not extended to the pillars ?

A. We always had confidence in castings ; I never knew of any manner of testing them ; those made at our own shop we felt sure of, and the man who made these pillars had as good recommendation as any ; I don't know but that as careful supervision, according to the custom, was exercised over the pillars as over any other part ; the foundations and walls were our own work ; for the pillars we went to a man who does such work ; if we want a machine, and go to a man whose business it is to make such machines, we expect it will be a proper one when we get it ; this will be a lesson to all to test castings more carefully hereafter.

TESTIMONY OF CALEB CROSBY.

Am a mason and contractor ; have been engaged in the erection of large buildings for the last fifteen or twenty years ; have visited the ruins, and find it very difficult to judge of the mortar as it appears now ; should think it was pretty good, but not as strong as some I have seen ; saw no indications of there being too much sand in it ; don't know as I could have improved the mortar ; think it was as good as we usually find ; we have no rule for mixing mortar ; know William Flynn, of Lowell ; think him one of the best hands to make mortar that ever made it for me [Flynn was the person who made the mortar for the Pemberton Mill] ; a contractor would gain nothing by putting too much sand in his mortar ; don't know of any difference in the strength of Vermont and Thomaston lime ; the Vermont will make a greater amount of paste than the Thomaston ; have used some of the sand from the Pacific, and call it excellent. [The sand used in the Pemberton Mill was from the same place.]

Tenth Day.—Morning Session.

TESTIMONY OF G. V. FAWKES.

Am agent of the Washington Mills ; was at my desk in the counting-room, and heard the building fall ; ran and looked out of the window ; saw the people in the yard looking towards the Pemberton, and looked towards it myself ; saw the building falling, and a woman in the air who threw herself from an upper window ; when the dust had cleared away, I saw that the mill had fallen down to the second story on the north-west portion ; the weight in falling struck the roof of the weaving shed, and broke it in ; on the eastern side and in the centre, the roofs were down within a few feet of

the foundation, and the successive floors projected over the lower some ten feet; standing upon the top of the ruins they seemed to be level on the west side, and sloped up towards the counting-room, the privies, and the chimney; should think all the west wall fell outside.

TESTIMONY OF ISAAC HINCKLEY.

Reside in Lowell; am superintendent of the Merrimac Manufacturing Company; in 1857, I visited the mill under instructions to make an estimate of the cost of building a mill of the same capacity for manufacturing the same kind of work; we (Mr. Burke and I) expressly declined making an estimate that would require us to examine and estimate the structure itself as a building; in passing through the mill saw no reason certainly to cause me to believe that the mill was coming down; an uncommon deflection of the floors I was aware of; thought the weaving-room was heavily loaded; the other rooms were not uncommonly so; the mills that have been built in Lowell since 1853 have been built with vaulted walls. [Witness described the construction of mill No. 1, rebuilt in 1854, illustrating his description with plans.] The dimensions of the pillars of the first story were as follows: at the base, 6 1-2 inches in diameter and 7-8 inch thick; midway of the columns, 6 2-3 inches in diameter and 7-8 inch thick; at the upper end 6 inches in diameter and 7-8 inch thick; these pillars were cast at the Lowell Machine Shop; we were told that they were tested at the machine shop; never used any test ourselves except that of weight; the widest space between the bearings in any of the mills in the Merrimac yard, is from twenty to twenty-three feet; the widest mill in the yard is seventy-two feet from outside to outside; at the time of the examination of the Pemberton Mill, I noticed no apparent lightness of the pillars; have frequently been in the Pemberton Mill when it was in motion; the motion of the mill was less than noticed in the old mills of Lowell, and no more than in the new mills.

THE TESTIMONY OF WILLIAM F. BURKE.

Reside in Lowell; am superintendent of the Lowell Machine Shop; was associated with Mr. Hinkley in making an estimate of the amount of money it would require to duplicate the Pemberton Mill; visited the mill and made a cursory examination of it; noticed considerable settling between the timbers; it was not sufficient to cause any apprehension of danger; the estimated weight of the carding machinery and necessary furniture occupying the second story, and a part of the fourth, is three hundred and twenty-five tons, of the spinning machinery and furniture two hundred and thirty-five tons; the machinery of the fifth story weighed about seventy tons. Taking the shafting of another mill as a point to judge from, I can say that there must have been one hundred and twenty-five tons of shafting in this mill; the largest proportion of the shafting was in the weaving-room, where it was suspended from the second story floor; noticed the carding-room was pretty heavily packed with machinery, closer than is common; the foundry at Lowell is under my superintendence; no test is employed for cast-iron pillars, except such as it receives when the core is extracted, the casting being slung up and rapped to loosen the core; we make long pipes and find little trouble in keeping the core in the right place; water and gas pipes are tested by being subjected to a pressure of two or three hundred pounds to the square inch; not more than one in ten of the pillars we mould are defective; the pillar before me has the appearance of being defective, from want of care in securing the core, from impurities in the iron, want of skimming, and from the iron having been poured when it was "slack" (not of a sufficient heat); the iron seems to be as good as what is generally used in such castings; do not think the moulder could detect a thinness of two-thirds of an inch in the centre of the pillar; never knew any pillars from our foundry broken after they were put up;

had some returned to us because they were crooked, which was perhaps caused by the inequality of the thickness of the different sides; I could not form an estimate of the amount one of these flanges on the pintle would bear before breaking, without careful investigation; but I should think it was a small amount of iron to sustain such a weight of machinery; have no recollection of ever making pillars with pintles at the Lowell foundry.

Afternoon Session.

TESTIMONY OF WILLIAM H. BURLEY.

Am a physician in Lawrence; have practised here five years; saw Maurice Palmer before his death at the City Hall; his neck was cut in three places, each gash being superficial, and each about two inches in length; the wounds cut through the veins; the interior veins were not injured; I should say the wounds were of a serious nature, and that death might result from the loss of blood; thought he was injured internally; thought at the time if he had had no other injuries than those wounds in his neck he might have lived; think his internal injuries were severe enough to make his living impossible.

J. P. PUTNAM, RECALLED.

Wish to set myself right in regard to my agency in the matter of the pintles and pillars. [Witness read a copy of a letter sent by witness to Capt. Bigelow, referring to the pintles, and saying the plans made for them would be submitted to him.] I think that the suggestion came from Capt. Bigelow to me in regard to the pintles; he does not agree with me, however; I wish to show that whatever was done by me was done with Capt. Bigelow's knowledge and sanction; I submitted every thing I wanted to Capt. Bigelow; I did not myself desire to undertake the responsibility of the engineering.

CAPT. BIGELOW, RECALLED.

Windows contained forty panes each, eight high and five wide, and the glass was ten by fourteen, making the length of the windows about ten feet; the space on a vertical line between the window caps of one story, and the window sills of the next was about three feet, until at the fifth story where the cap of the fourth story is the sill of the fifth; the longest span in the mill was twenty-six feet and ten inches, the greatest vertical distance from floor to floor was in the weave-room, fourteen feet; and the second, third, and fourth stories, thirteen feet; the height of the mill from the top of the weave-room floor to the top of the wall was sixty-three feet; to the top of the attic floor it was fifty-three feet.

TESTIMONY OF J. B. FRANCIS.

Reside in Lowell; am an engineer, employed substantially by the various corporations of Lowell, and an agent of the Company of Locks and Canals; have been employed by the Locks and Canal Company about twenty-five years; and my connection with the whole of the mills has been about fourteen years; have been called upon to design particular parts of various structures; the parts where I have been called upon to advise principally have been the foundations and motive power; my business has been mainly connected with water power for some years.

Q. Please state what connection you ever had, if any, with the use of the pillars of the Pemberton Mill.

A. The year before the mill was built I was asked by Mr. Putnam, who was at the time treasurer of the Boott Cotton Mills, at Lowell, in relation to the pillars of a mill he was then intending to erect at Lawrence; what was said I cannot now recollect, but I subsequently wrote him the letter following:—

"LOWELL, Dec. 18, 1852.

"*Dear Sir* :—Assuming the weight on the lower columns is the same as that on the corresponding columns of the Prescott Spinning Mill, a column seven inches diameter and one-half an inch thick would give ample strength, provided it could be properly cast. I should think it would be better to make it six inches in diameter outside and three-quarters of an inch thick, which gives an abundant margin for all contingencies. Of course, any column which has manifest imperfections should be rejected; but my calculation is intended to cover all ordinary imperfections. Of course, the columns in the upper stories may be gradually diminished in size and thickness.

"Very respectfully yours,

"JAMES B. FRANCIS."

As now informed, the area of floor supported by each column in the Pemberton Mill was fully double that supported by each corresponding column at the Prescott Spinning Mill, and consequently each column had to support double the weight at the Pemberton Mill that each column had to support at the Prescott. This, of course, is assuming that the weight per square foot of floor is as great at the Pemberton, as at the Prescott, of which I suppose there can be no doubt. In the Pemberton the spans were 26 feet 10 inches by 19 feet, giving an area of 268 1-3, and on four floors, 1073 1-3. In the Prescott Mill the spans were 16 feet by 8, giving an area of 128 feet, and on four floors, 512 feet. Besides this, the roof of the Prescott Mill is self-supporting, while that of the Pemberton was not; the roof loaded with snow would amount to a third or a half of the weight of another floor; always make an estimate for any particular case of the strength wanted; I put one-twelfth or one-fifteenth part of the weight on a column that would break it if the column was perfect; the rule is deduced from experiments on nicely adjusted columns, such as are never expected to be found in common pillars; instead of giving an estimate of the Pemberton, I took another structure of the same height, and gave the same estimates for it; if the structure differed from it, the estimate should have differed. A column 12 feet long, 5 3-4 inches in diameter, and 3-8 of an inch thick, according to the rule given by Hodgkinson, has a breaking weight of 231 tons; a similar pillar, only 5 1-2 inches in diameter, with same thickness and length, has a breaking weight of 203 tons, by the same rule; a column of the same length and thickness, 5 5-8 inches diameter at the base, and 5 1-8 inches in diameter at the top, with a true taper, by the same rule, has a breaking weight of 190 tons; this rule was deduced from experiments upon a large number of columns of various sizes, the largest being 7 feet long and 3 inches in diameter. I made an estimate of the strength of a flange, 7 inches in diameter, 1 1-8 inches thick, resting on a pintle 3 inches in diameter, with a column resting on it 5 5-8 inches in diameter, and 1-2 an inch thick, not perfectly fitted; I made its breaking weight to be about 45 tons; a fourth part of that would be a safe weight, perhaps, a fifth safer, and some would use a third—from a third to a fifth.

Q. Was this shoring, in your opinion, in any way insufficient?

A. I am in the habit of coming at these things by figures. It is useless to guess when a fact can be so easily demonstrated, if I can know the weight to be supported. Estimating the weight as follows: Machinery on second floor two hundred and seventy-eight tons; third floor one hundred and fifty tons; fourth floor one hundred tons; fifth floor seventy-five tons; shafting one hundred and twenty-five tons; five hundred people thirty-one tons; stock on upper floors sixty-five tons; piping and columns sixty tons; the floors and roof one thousand two hundred and sixty tons; total two thousand one hundred and forty-one. The weight for each column on the lower floor would be *twenty-five tons*. This is between one-ninth and one-tenth of the esti-

mated breaking weight of the columns; that ought to be sufficient; providing that the columns were made as nearly perfect as they are usually made, this would be safe, though not so large a margin as I should recommend; but as the columns turn out, I consider it was entirely unsafe. The weight of twenty-five tons on the pintle being more than one-half of the breaking weight, I should consider to be entirely unsafe. If these columns had been as good as they ordinarily are and a pintle had broken, think it would not have endangered the fall of the mill; think the pintle a poor thing any way; if I had been called upon to give a professional opinion in regard to the strength of the pintles for the weight, I should have gone through the same calculation I have now gone through, and I don't see how I could have arrived at any other conclusion. Think there should have been another row of columns in the mill; think vaulted walls should be bounded with cement; I should prefer solid walls if laid in mortar; we have been in the habit of building thicker walls in Lowell; I should adhere to that; we don't know how thin walls will do until something happens; I don't imagine any disaster would have come to the walls if the columns had not broken; the perfect running of the lines would give me additional confidence if I felt any apprehensions, while it would be a powerful argument that the trouble did not originate in the walls; I cannot escape the conviction that the fall originated with some trouble with the pillars; but still if the building had not been uncommonly light, I do not think the breaking of one column would have caused the fall of the whole building; should not distrust the building on account of a crack near the chimney; as far as I know there has been no method in Lowell for testing columns; the engineer has discharged his duty when he has made the plans; we have divided things off in such a way in Lowell that each man is responsible for his own work; this is the first time I ever heard or read of an iron column breaking.

This closed the evidence before the inquest. Several days were required in the review by the jury, and as this work is hurried to press the verdict has not been returned.

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